WATERFOWL DECLINE IN THE MISSISSIPPI FLYWAY

HEARING

BEFORE THE

SUBCOMMITTEE ON FISHERIES AND WILDLIFE CONSERVATION AND THE ENVIRONMENT

OF THE

COMMITTEE ON MERCHANT MARINE AND FISHERIES HOUSE OF REPRESENTATIVES

ONE HUNDREDTH CONGRESS

SECOND SESSION

ON

THE DECLINE OF WATERFOWL IN THE MISSISSIPPI FLYWAY AND THE LOSS OF WINTERING HABITAT IN THE MISSISSIPPI FLOOD PLAIN

SEPTEMBER 22, 1988

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WATERFOWL DECLINE IN THE MISSISSIPPI FLYWAY

THURSDAY, SEPTEMBER 22, 1988

HOUSE OF REPRESENTATIVES, SUBCOMMITTEE ON FISHERIES AND WILDLIFE CONSERVATION AND THE ENVIRONMENT, COMMITTEE ON MERCHANT MARINE AND FISHERIES,
Washington, DC.

The subcommittee met, pursuant to notice, at 2:28 p.m., in room 1334, Longworth House Office Building, Hon. Gerry E. Studds (chairman of the subcommittee) presiding.

Present: Representatives Studds, Tauzin, Carper, Clement, Oberstar, and Young.

Staff present: Gina DeFerrari, Joyce Sacco, Jeffrey Pike, Lisa Murray, Sue Waldron, Tom Melius, George Pence, Lori Williams, and Tim Bellamy.

STATEMENT OF HON. GERRY E. STUDDS, CHAIRMAN, SUBCOMMITTEE ON FISHERIES AND WILDLIFE CONSERVATION AND THE ENVIRONMENT

Mr. STUDDS. The subcommittee will come to order. The subcommittee meets today to investigate the reasons for the decline in waterfowl populations in the Mississippi Flyway.

The population of waterfowl throughout the United States has declined dramatically in recent decades, dropping from 100 million ducks in 1970 to only 66 million today. The Mississippi Flyway is no exception, where populations have dropped from 26 million in 1970 to 18 million today. Contributing to this problem is the loss of valuable waterfowl habitat. Historically, the Prairie Pothole Region of the United States located in the Northern Plains has provided breeding habitat for waterfowl, while the wetlands of the Mississippi Flood Plain have provided wintering habitat. We have lost a staggering amount of both habitats and they continue to disappear at an alarming rate, in spite of federal laws designed to protect against such losses.

The vast majority of wetland losses have resulted from conversion to agricultural use. Efforts are now being made to halt the destruction of our valuable wetlands through the implementation of the 1985 farm bill. The farm bill authorizes the Farmers Home Administration to place restrictions on the deeds of property it holds to protect wetlands, and withdraws subsidies to farmers that drain certain wetlands on their property for cultivation. The success of this program is as yet undetermined. Efforts are also underway to acquire wetlands through funds collected from the sale of the mi-

gratory duck stamp, the Land and Water Conservation Fund and other federal appropriations. In addition, the North American Waterfowl Management Plan has been successful in forging private, State and Federal commitments for wetland acquisition. While these programs have all helped to save wetlands, the purchase of wetlands is an extraordinarily expensive and slow way to battle the continuing loss of this valuable habitat.

There have been allegations recently that illegal waterfowl hunting contributes significantly to the decline in duck populations. A series of articles in a Minnesota newspaper highlighted the illegal duck harvest in Louisiana, and charged that the Fish and Wildlife Service has not responded adequately. We have before us today a series of witnesses that can knowledgeably discuss them.

Finally, the drought has extensively dried up existing habitat and taken its toll on waterfowl populations, and it is unclear whether they can bounce back to healthy levels as they have after past droughts.

Let me turn first to the distinguished, unspeakably distinguished gentleman from Alaska, the ranking member.

STATEMENT OF HON. DON YOUNG, A U.S. REPRESENTATIVE FROM ALASKA

Mr. YOUNG. Thank you, Mr. Chairman.

I would like to have a moment of, not silence, but suggestion that there is a tendency when one is hurting to blame our neighbors for that hurt, instead of collectively putting our heads together and trying to figure out what's wrong, where do we go, and what will be the end results as far as the duck population?

I would suggest your comments about wetlands is very true. We are losing them at an alarming rate. I don't agree that it's necessarily the fault of the agricultural community because agriculture itself plays a vital role in the sustained yield of ducks, geese, and waterfowl of our Nation, if it's properly managed.

I want to suggest that what we should be doing is not only looking at our fellow States, instead of pointing fingers, put our heads together collectively. I also suggest, Mr. Chairman, we ought to look across the border.

We have a tendency in this Congress, and by individuals, to put the blame on one another and the solution within ourselves. But ducks are not stationary, they're waterfowl that move across borders in Canada. What are they doing in Canada? We don't know. What are they doing in Mexico? We do know. Mexico is harvesting our ducks at an alarming rate. Not Louisiana, not Texas, not those States, it's Mexico. And yet I don't hear anybody mentioning that at all.

The second thing, Mr. Chairman, I would suggest that we ought to look at the possibility of trying to retain as many ducks as possible in the United States through feeding programs, encouragement of agriculture in the lower part of the United States that has rice fields, grain fields, so those ducks will stay there instead of going across the borders. I think we ought to, in our own way, start working together collectively through Ducks Unlimited.

The last thing I'd like to say, Mr. Chairman, I have a piece of legislation that this body has moved. I'm afraid some of those that are testifying today did not, or will not support, and hopefully they'll see the wisdom of it, that would give us the opportunity to purchase some of the remaining wetlands that are left along our coastal States. And that is the opening of the Arctic Wildlife Range in Alaska for oil development. I'm going to suggest to those in the room from the Northern States, look upon that very favorably, because I have not gotten much support from anybody in this room for that legislation. If you really want to solve a problem, that's one of the ways, because the purchase of wetlands, encouraging the agriculture industry to retain some of their fields instead of burning and let those birds feed on those fields, and to work to try to stop what's happening in Mexico. It does us little good to point our fingers at one another, because I don't think that solves the problem.

Thank you, Mr. Chairman.

Mr. STUDDS. The plot thickens. [Laughter.]

Does the gentleman from Louisiana wish to make an opening statement?

STATEMENT OF HON. W.J. TAUZIN, A U.S. REPRESENTATIVE FROM LOUISIANA

Mr. TAUZIN. Thank you, Mr. Chairman.

Mr. Chairman, I'd like to first thank you for allowing us to focus on the critical decline in waterfowl populations in the Mississippi Flyway. But as you are keenly aware, I have been concerned since we first discussed this subject, the hearing might turn into something else, some opportunity for those who wish simply to point the accusing finger of blame upon one State or another.

We're very familiar with recent articles in some States which have focused in that direction. Pointing the accusatory finger will do nothing to help vanishing duck populations. This hearing will accomplish nothing, for example, if witnesses from the northern States merely repeat those well-publicized, sometimes sensationalized, accounts of ducks overkilled in my State and other States. If witnesses from the South tell sensational stories of acres of breeding grounds that have been needlessly converted to farm land in the North. I hope those that are testifying here today direct their comments toward the true purpose of our inquiry.

We need to hear about the loss of breeding ground, what is being done to correct that problem from those who represent the areas where the breeding grounds are being lost. We need to hear about loss of winter habitat from those who represent areas where winter habitat is being lost. We need to hear about law enforcement and education efforts from representatives of those areas where in fact those problems exist.

I'm sure, Mr. Chairman, that those problems do not only exist in Louisiana or Texas. In fact, I'm certain that the subcommittee would be quite pleased to learn, and will be learning about the great strides that Louisiana has made in increased efforts to protect both ducks and their habitat. It's my sincere hope that we leave this hearing today with a complete and factual understand-

ing of the causes of the decline, including some understanding of what this year's drought has done to the population of the flyway, and that following this hearing we're able to set as a priority in the next Congress efforts to reverse those declines.

Thank you, Mr. Chairman.

Mr. STUDDS. The gentleman from Tennessee, an opening statement?

Mr. CLEMENT. No, Mr. Chairman.

Mr. STUDDS. The gentleman from Minnesota who is an honorary on-leave, temporarily so, member of the subcommittee, does he wish to make an opening statement, calmly?

Mr. OBERSTAR. Yes, Mr. Chairman.

Mr. STUDDS. The gentleman is recognized.

STATEMENT OF HON. JAMES L. OBERSTAR, A U.S. REPRESENTATIVE FROM MINNESOTA

Mr. OBERSTAR. Calmly and rationally as always.

I ask unanimous consent to include in the record the text of my detailed statement, and to summarize. Saying that, Mr. Chairman, I first of all appreciate your taking on this very thorny, difficult and contentious issue and your willingness to dedicate your time and that of your staff.

I've spent 14 years on this committee, though I've been on leave, serving on Budget Committee, I have not left the subject matter which is the jurisdiction of the subcommittee. Fish and wildlife are to the heart of our existence as a North American community; the habitat and the wildlife that inhabit it. It was my privilege to author legislation my first term in Congress, and to manage it on the House floor, which provided for acquisition of wetlands—the Wetlands Acquisition Program, as well as the extension of the Wetlands Loan Program to, in effect, rent farm land so that farmers would not plant fence row to fence row and bring into production marginal lands that would better be left for waterfowl populations, to assure that those lands would remain wetlands available for waterfowl.

But what we have seen, despite the efforts of this committee, and the setting aside of wetlands, acquisition of wetlands, the easements for wetlands in waterfowl production, and the efforts of Ducks Unlimited to acquire wetlands in Canada, is a precipitous decline in waterfowl populations of the United States in all the four major flyways. Particularly in the Mississippi and the Central Flyways, we have less than half the number of ducks of some 20 years ago. Breeding populations of 10 major duck species have declined by nearly a third in this decade alone—that is a matter of great alarm for all of us—results, in large part, of changes in habitat.

As the gentleman from Louisiana said, both in Minnesota, North Dakota, in the Prairie Pothole Region, in Canada from the origination point of ducks in their breeding and nesting grounds, and in the Louisiana coastal area, where oil and gas development have caused saltwater intrusion into the marshlands, wetlands ands waterfowl habitat have been destroyed. In all those areas, actions of man to one extent or another have caused losses of wetlands. To

that, add the ravages of nature. Continuous drought over a three-season period dried up wetlands. Wetlands are in very critical condition. The disappearance of wildlife is a critical indicator for man himself in the heartland of the North American Continent, an indicator to us that something is going wrong that affects our way of life and our existence as a people. And when you superimpose upon that illegal activities of hunters that decimate waterfowl populations, you have a composite problem that we have to deal with.

I hope that through this hearing and subsequent inquiry into the problem we'll be able to ascertain the facts and attempt to measure to what extent habitat is a cause; to what extent man's affect upon habitat is a cause; and to what extent man's activities with respect to the wildlife itself are cause of the decline in waterfowl populations. We need to address these issues openly, and fairly, and squarely. And if we find that there are problems that result from preventable activities of people, of hunters themselves who are decimating their own enjoyment, then those problems must be addressed. But the purpose of this hearing is to lay the facts out, however painful they may be to any of us, and then to deal with them in a reasonable and rational manner.

With respect to the specific situation of illegal hunting in Louisiana which has been a subject of extensive news reports, I must say that I'm familiar with the actions taken by the new Governor of Louisiana and the new staff that he has brought in to the Department of Fish and Wildlife, and I have great hope and encouragement for the future—I hope that corrective action will be taken in those areas where we can make a direct and positive difference.

Again, thank you, Mr. Chairman, for holding the hearings. I look forward to laying the facts out on the table.

[The statement of Mr. Oberstar follows:]

Statement of
THE HONORABLE JAMES L. OBERSTAR

before the House Subcommittee on Fisheries and Wildlife Conservation and the Environment, Oversight Hearing on the decline of waterfowl populations in the Mississippi Flyway

September 22, 1988

I compliment Chairman Studds on his recognition of the absolutely critical nature of the waterfowl population crisis and his decision to hold a hearing on this important issue before the fall hunting season, despite an extremely busy schedule and full committee agenda.

Before the advent of Europeans on the North American continent, ducks, geese and other waterfowl were abundant. Early settlers described in glowing terms nature's abundance. In the mid-1800's, a hunter in rural Minnesota wrote about waterfowl population:

> To describe the flight of ducks on a cloudy evening during the latter part of October.....would be somethin beyond the power of my pen; it is simply immense. Thousands of birds are on the wing... and later, as the daylight begins to fade into the gray of the evening, one would think from the terrific flights that the birds were aiming at the hunters' heads, for often we have to "duck" our heads to escape being knocked over. Standing near the west end of the eastern lake, the ducks begin to drop in their flight, frequently flying so low that the dogs bound into the air to catch the birds. Everyone who has spent an evening....(here)....has expressed astonishment at the number of ducks on the wing.....
>
> (letter from "Rusticus", Shakopee, Minn., 1877)

As recently as the mid-1940s, North American duck population was approximately 150 million. Today, a short four decades later, experts estimate duck population has declined nearly 60 percent

to approximately 62 million! The decline in duck population has accelerated in recent years. Breeding populations of North America's 10 major duck species, a critical indicator of the vitality of North American waterfowl, have declined by 28% this decade, from 41 million in 1979 to 29.5 million in 1988. Such a precipitous decline is cause for great concern for all who have interest in our continent's waterfowl resource.

Most experts agree that the causes of the decline in duck population are manifold. Changes in the condition and availability of waterfowl habitat have clearly contributed substantially to the reduction in the number of ducks, geese and other waterfowl in North America. Potholes, swamps, ponds and similar water reservoirs are critical resting, breeding, nesting and nuturing areas for waterfowl--these areas are the "incubators" for North American waterfowl. Actions of man and nature have combined to drastically reduce the numbers of these once-plentiful breeding havens. Many have been drained, filled and put into cultivation or otherwise "developed". Others have been stripped of critical surrounding vegetation and other cover as adjacent lands are cultivated, making the besieged wetlands far less suitable for nesting and breeding.

The nationwide drought of 1988 has devastated wetlands. Unfortunately, the dry conditions this year are only the worst in a series of very dry years. Throughout the important breeding areas of the central prairies of the northern United States and Canada, most temporary wetlands were completely empty by early

May and even large, permanent marshes were mostly dry by mid-summer. After three years of drought, even many wildlife refuges are able to support only a fraction of the waterfowl they once harbored.

Some of the wetlands which remain have been poisoned and polluted. Land and water tainted with toxic chemicals and waste cannot support a healthy, thriving duck population.

Waterfowl populations are faced with not only fewer breeding areas, but also with an accompanying reduction in productivity in the breeding areas which remain! The loss and destruction of waterfowl habitat means greater pressure on remaining marshes and wetlands. Greater numbers of birds crowded into smaller and often less suitable habitat generally means lower waterfowl productivity in those areas.

Hunting places additional pressure on waterfowl population. Because of the current heavy pressure from loss of habitat, the drought, natural predation and other factors, limitations on waterfowl hunting have been imposed by federal and state agencies charged with the regulation of hunting and waterfowl management. Opinions vary about whether restrictions on length of seasons, legal harvest limits and other remedies have been sufficiently stringent. However, virtually all experts and concerned citizens agree that illegal harvest of ducks--poaching---constitutes the ultimate, intolerable pressure on beleaguered waterfowl.

A recent series of articles in the St. Paul Pioneer Press and Dispatch describes widespread illegal overharvest of ducks in

the Gulf coast areas of the Central and Mississippi Flyways, particularly in Louisiana, which winters approximately one quarter of all ducks in the United States. These articles and other accounts of gross illegal overharvest in a time of a real waterfowl population crisis demand investigation.

The goal of this hearing is to gather experts-- federal and state government leaders, hunters, conservationists and others-- to more clearly define the problem of declining waterfowl population in North America, its parameters and severity. I hope, through this examination, we can determine which factors are most significant and the relative significance of those factors in the waterfowl population crisis.

Finally, and most importantly, we seek to develop an agenda to address the problems faced by waterfowl and work toward improvement of the conditions which place excessive pressure on declining waterfowl populations.

The crisis faced by ducks is not theirs alone. Man and his environment, including all plant and animal life, have a symbiotic relationship. Changes in the flora and fauna which compose man's environment ultimately impact man. Habitat delince and degradation, drought and overharvest of waterfowl should be matters of serious concern to everyone. If duck populations continue to fall, it is not only birdwatchers and hunters and conservationists who lose--it is all humankind.

Mr. STUDDS. The Chair would simply observe that he is aware of the importance of the subject to the gentleman from Louisiana, and the gentleman from Minnesota, that he is particularly appreciative of those certain chances of the tranquility with which the hearing has begun. And, as both gentlemen know, the Chair made it clear from the beginning that he was going to be unable, because of other commitments, to attend this hearing. I apologize to our colleagues from Minnesota.

Suggestions that the Chair be assumed by both the gentleman from Louisiana, and the gentleman from Minnesota, each met with some objection, and therefore, the distinguished, extraordinarily kind and thoughtful, and unspeakably impartial gentleman from Tennessee has agreed to assume the Chair as part chairman, part arbiter for the duration of the hearing. I don't know whether that's because the ducks occasionally fly over Tennessee and he feels very neutral, or the odds are minimal that anyone will be able to understand much of what he says but certainly my staff will need an interpreter. I appreciate the willingness, the kindness of the gentleman.

Mr. TAUZIN. Mr. Chairman.

Mr. STUDDS. The gentleman from Louisiana.

Mr. TAUZIN. Just an inquiry. We have established, of course, the gentleman from Tennessee bears no grudge for the recent LSU/Tennessee match, I hope. [Laughter.]

Mr. STUDDS. I'm sure that he will be pleased to tell you what he thinks of that as soon as he gets here. At this point, I would ask the gentleman from Tennessee if he would not mind assuming the Chair. I look forward—the rules are: no shooting of either ducks or members in the course of this. [Laughter.]

Mr. CLEMENT [acting chair]. As a new member to the committee, some of you may not know that I'm from Nashville, TN. I represent Nashville, as well as one rural county, Robertson County. We have a lot of hunters, as all of you know, in the State of Tennessee, and proud of it. And we are very, very concerned about this matter. It's been discussed in detail in Tennessee like it has in Louisiana, and Minnesota, and many other States that enjoy hunting.

I will, therefore, proceed with this hearing. I'll proceed with the testimony. Representative Stangeland is not here.

Mr. PENNY. He should be on his way.

Mr. CLEMENT. OK.

Representative Tim Penny.

Mr. PENNY. Mr. Chairman, if I might, I will defer to my colleague from the Senate, Mr. Boschwitz. Both he and I have time constraints, but since he was the first—he was fast on the draw and suggested to me he had a time problem. I told him I'd let him go first.

Mr. CLEMENT. All right. That will be fine.

Your prepared statement will be inserted immediately following your oral presentation. Mr. Boschwitz, please proceed.

STATEMENT OF HON. RUDY BOSCHWITZ, A U.S. SENATOR FROM MINNESOTA

Senator BOSCHWITZ. I thank you, Mr. Chairman. Looking at my colleague from Minnesota, Mr. Oberstar, this morning and looking under his left eye, it seems that the Louisianans are getting the better of him. [Laughter.]

Well, Mr. Chairman, I thank you for——

Mr. SIKORSKI. You can't see Mr. Tauzin from the waist down.

Mr. TAUZIN. I was going to say, you ought to see the other guy. [Laughter.]

Senator BOSCHWITZ. I want to thank you for the opportunity of testifying on the rapidly decreasing North American duck population. Much has been said about that in the introductory remarks, and so I won't go over all the figures again which I have in my testimony, but I would ask unanimous consent that the entirety of my testimony be included in the record.

Mr. CLEMENT. It will be done.

Senator BOSCHWITZ. I live on a lake in Minnesota, Mr. Chairman, and see a lot of ducks, see a lot of Canadian geese, as well. They're kind of messy, but nevertheless it's nice to have them there, and it is really an important element of Minnesota's lifestyle.

The U.S. Fish and Wildlife looks at the current duck population as it prepares for the upcoming hunting season. And with the drop in duck population, it has taken steps to reduce the length of the hunting season and the number of birds that a hunter can take. Of course, if natural attrition and legal hunting were the only two forces reducing the duck population, we wouldn't have the serious decline that we face today.

Much of that decline is a result of illegal hunting. And earlier this year, I became aware of the widespread poaching that was taking place in certain parts along the Lower Mississippi Flyway. In certain areas, more ducks were being shot illegally than legally. The problem has truly been one of considerable crisis to our Minnesotans.

In response to this problem, I have supported the Izzak Walton League's efforts to purchase a helicopter for the U.S. Fish and Wildlife Service, so that they can better patrol the vast marshes in the Lower Mississippi Flyway. I support the recommendation by the Interior Appropriations Committee that the Fish and Wildlife Service come up with $400,000 to purchase, equip, operate, and maintain a helicopter, and a great deal of money has been raised quickly from thousands of people in all parts of the world to pay for it as well, because the $400,000 does not cover the entirety of the expense. The problem is one of enforcement, at least this aspect of it is, and measures have to be taken to enforce the law and protect the duck population.

It was interesting to hear the Congressman from Alaska talk about Mexico. I'm not familiar with that aspect of the problem, but I will look into it and make myself familiar with it.

I realize the main thrust of this hearing is to address the illegal hunting that is taking place in the southern wintering grounds, but let me add a few comments on a related topic in which I'm very much involved.

Although illegal hunting is a major problem, just as serious is the loss of waterfowl habitat. Both developments are contributing to the falling duck population, and both need to be addressed. I heard one of the members, I think the Congressman from Louisiana, talk about the drought. And that's certainly—I mean, we can see that all over our countryside that many of the watering holes, or a lot of the wetlands have just plain dried up. And that, too, has an impact on it.

As a member of the Agriculture Committee in the Senate, I work very closely on issues that are going to have a major impact, and that have had a major impact on wetland habitat for waterfowl. The 1985 farm bill made important strides in protecting those habitats. It established the CRP, which sets aside 45 million acres from production use to conservation use. And you know how it is in agriculture, of course, first we buy a lot of land into production, and then we buy it out of production. We have to correct that and just not allow it to come into production in the first place. In addition, the 1985 farm bill prohibited the drainage of additional wetlands, the so-called swampbuster provision, which I'm very much in support of, and there are further steps that we can take to help to protect waterfowl habitat.

I had an interesting meeting with some people from the whole hunting and fishing community of Minnesota, and they described the loss of those wetlands, through the swampbuster provision, and how that swampbuster provision had slowed that down. I was presented with the idea, at that same meeting, to which I alluded, and asked to support a long term set-aside as a way to encourage wildlife habitat. Since that time I've looked at it and looked at the feasibility of it, and decided that it is a good provision, and I have become a cosponsor of a bill that has been introduced in the Senate by Senator Bond of Missouri. This legislation would require the Secretary of Agriculture to offer three year set-asides for the purpose of establishing wildlife habitats. The Federal Government would pay up to 25 percent of the cost of a cover crop, and a State match would be required. Encouraging farmers to set aside land for a longer period would open up much more land as habitat for ducks and pheasants, and also it recognized the fact that set-aside land is sometimes alternated and this would allow it to develop, and the longer it develops the less likely it would be to be put back into production later.

In addition, I'm working on making a sound conservation measure that really is a centerpiece of the 1990 farm bill. I believe the next farm bill has to eliminate the current incentive for intensive crop production on fragile land. Senator Boren of Oklahoma and I introduced the so-called decoupling bill, and the chairman of the committee, before he left, talked about the conversion of land to farm use. Well, the decoupling bill would no longer make it profitable to take marginal land and put it into production. We would remove the incentives to do that. It's really the only farm bill that would do it, and very frankly, when we introduced that, now, 3½ years ago, that was not—we looked at it from more of an agricultural standpoint, but the additional aspect of conservation is one that's very welcome and that bill does indeed impact. In the decoupling bill, by removing the incentive to produce, we also remove

the incentive to the use of nitrates and other fertilizers that don't do much for the water table, and which don't do much for the farm lands, because all of that runs into those low points. So hopefully, decoupling and that whole approach will be an important element, and I think it will, of the 1990 farm bill. I believe the chairman of our committee looks upon that part of it, particularly that part, very favorably.

When we remove the incentive farmers will no longer try to wring every last bushel out of marginal land, through the heavy use of fertilizers and pesticides, as I mentioned. Second, I'll look at putting a conservation provision in the bill that really makes, or rewards sound conservation practices. I think we can do that, and I think we can do that with land that does not need to be in production, and land that really is marginal. And there's a great deal of it.

For instance, I'm currently studying on how a conservation payment could be paired with current farm payments, or with decoupled payments. In this approach, there would be a certain payment tied to the size of a farmer's operation. In addition, there would be a conservation payment based on each farmer's conservation practices. By paying farmers for conservation uses, such as long-term set-asides, and by reducing the incentive for intensive production on fragile lands, conservation could become a much greater factor in each farmer's management decision.

Mr. Chairman, I want to thank you and the committee, again, for allowing me to testify on the importance of maintaining our waterfowl population. I urge this committee to take the action necessary to prevent further illegal killings in the Lower Mississippi Flyway. We need to provide the Fish and Wildlife Service with the necessary support to enforce the law. As I have stated, I'll be working on the Senate Agricultural Committee to support wildlife habitat. In our side of the aisle, on our side of the Capitol, that's the principal area where that kind of legislation will begin.

I might say, in closing, Mr. Chairman, that my colleague, Senator Durenburger, has for a long time taken a very active interest in all of this, and in his life he has been very much involved as a personal matter in hunting and fishing, certainly much more so than I.

Mr. CLEMENT. Senator, thank you very much for your testimony today.

We'll now recognize Mr. Penny. Your prepared statement will be inserted immediately following your oral presentation.

STATEMENT OF HON. TIMOTHY J. PENNY, A U.S. REPRESENTATIVE FROM MINNESOTA

Mr. PENNY. Thank you, Mr. Chairman.

I want to commend you and the committee members for holding this hearing on illegal duck harvesting and other problems facing the North American waterfowl population, and thank you for the opportunity to testify today.

We in Minnesota and in other parts of the Mississippi and Central Flyways have been blessed with an enormous and varied waterfowl population that has been of great benefit and of interest to

naturalists, farmers, and hunters alike. This population of ducks and other waterfowl species, however, is facing a tremendous challenge today, and I feel that we have to act soon in order to protect them.

The seriousness of the illegal duck harvest was highlighted earlier this year in a series of articles by Dennis Anderson in the St. Paul Pioneer Press and Dispatch. It should not be inferred, however, that these illegal practices occur only in Louisiana—unfortunately, they happen throughout the country.

To counter the illegal duck hunting practices we must know to what extent they occur and then develop a plan to halt such illegal harvesting. The U.S. Fish and Wildlife Service should play a key role. They have done a commendable job under difficult conditions. Their task is formidable and they deserve our support. The Fish and Wildlife Service must be given adequate support to study the problem of illegal harvesting and improve the enforcement of existing regulations and laws pertaining to duck hunting throughout the Mississippi and Central Flyways. Specifically, we should have tougher penalties for violators, and put more federal agents on the job to go after the illegal hunters.

Education must also play a role in reducing illegal hunting practices. Young hunters must be taught respect for hunting laws and the wildlife they hunt.

The role of habitat destruction in the duck population decline cannot be ignored. Large areas of swamps in the waterfowl breeding grounds have been drained, and erosion losses of Mississippi River delta marshlands have decreased overwintering sites. A positive step towards preserving duck habitat has been the implementation of the conservation compliance provisions of the 1985 Food Security Act. Specifically, as Senator Boschwitz mentioned, the swampbuster provision of that farm bill has contributed to the conservation of existing wetlands. I might add, just in defense of the Penny/Dorgan farm plan, some of the same attributes that Boschwitz claims for his decoupling proposal accrue to ours as well. It would deintensify our production policies and give farmers less incentive to maximize production on every possible acre, and we call it the Family Farm Targeting and Marketing Act. So, his plan and my plan and others will be those ideas that will be on the table as we debate the 1990 farm bill. We feel that in addition to making for better farm policy, it can also tie into this need to provide for a habitat and protect our ground water.

There is still time for action on this crucial issue, but we must act now. The Fish and Wildlife Service needs to strengthen its efforts to stop illegal hunting. The funding that private sources, together with the funding in our Interior bill for a helicopter, should help in that effort, but more must be done to support the Fish and Wildlife agency in their efforts to monitor and stop illegal hunting practices.

In Minnesota we have a long tradition of protecting wildlife for hunters and nature lovers. It is a crucial goal for all of us that we, in all regions of the country, strictly enforce hunting laws to protect the future of our wild duck population.

Mr. CLEMENT. Thank you, Mr. Penny.

Another gentleman from Minnesota, Mr. Sikorski. Your prepared statement will be inserted immediately following your oral presentation.

STATEMENT OF HON. GERRY SIKORSKI, A U.S. REPRESENTATIVE FROM MINNESOTA

Mr. SIKORSKI. Thank you, Mr. Chairman. I feel a little like the cast in Sound of Music, the stage gets emptier and emptier.

I thank you. I commend the chairman for his prompt and positive response to the concerns that I and the entire Minnesota delegation, and others from the flyway have raised on this issue. I particularly want to thank a good friend and colleague, Jim Oberstar, who's been the Frank Viola and Jeff Reardon of this issue. He's got the job done and getting it done right.

The sight of my colleague, Jim Oberstar, on the panel before me, the unity of our delegation before you, the excellent series of articles by Dennis Anderson says something about the importance of this issue in Minnesota. Fish, wildlife, over 14,000 lakes are the ice cream and apple pie of Minnesota's recreational diet. For inhabitants of the land of the sky blue waters, these natural resources are more than just a way to spend a weekend. They're a way of life. Waterfowl on the wing have been a Minnesota tradition since before there were Minnesotans, before Native Americans named our State, Minnesota. And they've captivated generations of us since.

Our waterfowl have inspired Minnesotans as talented as Les Kouba to create majestic oil paintings of wildlife that have appeared in both duck and postal stamps; inspired Minnesotans as laconic as former Vikings coach, Bud Grant, who positively gushes about his one love above football—ducks. Generations of Minnesotans, like myself, have spent Minnesota boyhoods roaming the fields and grasslands of the Northern Prairie with our hunting dogs as our companions. My golden retriever of 14 years was named Rusty. Charles Lindbergh's bird dog was named Dingo. Always a visionary, Lindbergh took steps decades ago to address the same problem we're discussing today, when he constructed the first artificial habitat for ducks, his "Moo Pond," Moo being the Ojibwa Indian word for dirt. As Lindbergh later explained, "If there were ducks in it I was sure it would be dirty."

It's tragic to see a waterfowl population diminish so drastically, whether by drought, by disappearing habitat, by unscrupulous and unsportsmen-like poachers and profiteers, or by the impact of acid rain on hundreds of thousands of North American lakes and on tens of millions of acres of natural wetlands, farm lands, and woodlands. The impact of the drought of the last few years in our waterfowl population is not as colorful for the nightly news segment, but no less devastating than the fires of the West in our national forests and national parks. Both threaten priceless natural resources, painstakingly preserved and handed down through generations. And the actions of poachers is no less reprehensible than those middle of the night illegal loggers in our national parks.

Thousands of hunters, millions of just plain ordinary folks have marveled at the beauty of a flock of mallards or pintails or blue-

bills on the wing. Generations of hunters operating within the law have yearned to see the duck population return year after year.

And this is a shared legacy, a North American legacy. The Mississippi and Central Flyways stretch from the gulfs of the coast of Louisiana to the frigid arctic environs of northern Canada and Alaska. In the Book of Genesis, humankind is given dominion over the fish of the seas, the birds of the air, over the entire earth, but with that power, with that control comes responsibility. Our purpose here is to ensure that the legacy we pass on to the next generation of Americans is one blessed by the awe-inspiring sights and sounds of whole flocks, thousands of ducks, on the wing.

I thank the subcommittee for its attention to this matter, applaud my fellow witnesses, and Jim Oberstar from Minnesota for their devotion to this cause. Thank you.

Mr. CLEMENT. Thank you very much for all that beautiful language.

Mr. SIKORSKI. I was inspired by the statements.

Mr. CLEMENT. I noticed that.

The first panel please come forward. That would be Mr. Frank Dunkle, Mr. Roger Holmes, Ms. Virginia Van Sickle, Mr. Kenneth Babcock, and Mr. Vernon Bevill.

Your prepared statements will be inserted immediately following your oral presentations. Each of you are recognized for 5 minutes.

Mr. Frank Dunkle will be our first speaker. He's the Director of the U.S. Fish and Wildlife Service. Mr. Dunkle.

STATEMENT OF FRANK DUNKLE, DIRECTOR, U.S. FISH AND WILDLIFE SERVICE

Mr. DUNKLE. Mr. Chairman, I have three members of my staff with me today. I would like to introduce Mr. Marvin Plenert, who is the Assistant Director for Wildlife Resources; Dr. Rollin Sparrowe, who is the Director of the Office of Migratory Bird Management; and Mr. Clark Bavin, who is the Director of the Division of Law Enforcement. With your permission, I would like to call on staff to provide technical responses.

I am pleased to be here this afternoon, and I do have a formal statement. I would like your permission to submit this statement for the record then make a few remarks.

Mr. CLEMENT. Without objection it will be accepted into the record.

Mr. DUNKLE. Reading the statement would require more than 5 minutes and I will try to keep my comments to 5 minutes.

I would like to summarize a few major points. I think we are all aware of the problems and trouble with the waterfowl populations in the United States, Canada, and Mexico. Estimates of the fall flight indicate one of the lowest numbers that we have had in many years, and I would like to focus on some of the major factors that contribute to the population declines.

The significant drought of the last several years has been a major contributor to the loss of habitat. We have had a drought situation that far exceeds any seen over a number of years. We have lost over a million acres of wetlands in the breeding areas in the northern parts of the United States and the southern parts of

Canada. We have also experienced a decline in wetlands due to agricultural activities, both in Canada and the United States, where wetlands have been drained and then utilized for the production of crops. The loss of habitat due to the drought and other alterations has been the major reason for the dwindling number of waterfowl.

With that as background, I would like to discuss the enforcement problem for just a moment. As you know, both Canada and Mexico have taken rather drastic steps in cutting back their waterfowl seasons, and so has the United States. The Service did establish a series of restrictive frameworks for the regulations. The frameworks have been published, commented upon, and were recently issued as final regulations. Together with Canada and Mexico, and in consultation with the States, we have significantly reduced the hunting season opportunities for sportsmen this year. I think that sportsmen have recognized that we do have a problem and that we must all tighten our belts, hope for snow this winter, and for considerable rain next year and several subsequent years in order to return those populations to the hundred million mark that we would like to see.

I would comment, just briefly, on the law enforcement problems about which we have all heard. Some of the law enforcement problems and problems of illegal hunting in the South have received wide publicity. As we examined the information, it does not appear that these violations are confined to Louisiana. We found that violations occurred from Minnesota clear to Louisiana, since we have documented double trips in the North and excess harvest of many kinds of waterfowl in the South and in Mexico. The blame for illegal hunting and illegal practices can be shared by all of the States in the Mississippi Flyway. So I would like to state for the record, Mr. Chairman, that no one State is entirely to blame for illegal hunting. It instead appears that the situation in Louisiana received more attention this year.

We have agreed with many of the States that we do need to tend to our enforcement problems, and we are doing just that. We have worked closely with the States. Our agents and the State wardens and State agents work together to enforce State and Federal laws for waterfowl hunting during the hunting season. We have covert operations that are underway in several States, and have encountered a number of hunters who probably wish that they had been hunting somewhere else. And this year in both the wintering areas of the flyway and in the northern areas, the State wardens and special agents of the Fish and Wildlife Service will be working together to ensure that hunters obey the regulations during the season. We also will be sure to patrol and provide protection to the wintering populations during the other winter months when the hunting season is not open.

We have increased the number of agents this year. For the first time we have exceeded the target of 200 agents that Congress set for us. We now have 212 agents. We are supposed to have 202 agents, but will lose some agents due to retirements or other reasons. For these reasons, we are maintaining a cadre of trained people to move in and assume those positions.

As you know, Congress, as part of its action on our fiscal year 1989 appropriations bill, has recommended that we spend up to

$400,000 from our appropriations for a helicopter. I understand that someone was planning to ask me if I had personally contributed to the fund in Minnesota for the helicopter. My answer, Mr. Chairman, is that I have not contributed personally, but it does appear that I am contributing $400,000 from the Service's appropriated funds toward this effort. It has been recommended that this amount be devoted to a helicopter for use in the wintering areas. However, I do not know where the $400,000 will come from. If it comes out of our enforcement budget, it will mean that I have to reduce the number of agents by eight agents, and I am not very excited about that. If I take this amount from some other program, it will mean that one of the other important resource programs of the Fish and Wildlife Service will suffer. Perhaps there is not enough of an excess in that budget to absorb a $400,000 loss. The Congressional language which "recommends" this action does allow the Fish and Wildlife Service an opportunity to decide whether or not to allocate the money to the helicopter fund. At this moment, I am disposed to keeping the eight agents in the field rather than allocating the funding for purchase of the helicopter. Perhaps Congress will consider where I might find the $400,000.

I would note, Mr. Chairman, that the Service has an excellent working relationship with the various States in the Mississippi Flyway. We do not always agree, but we work together to ensure the proper management and protection of the waterfowl resource in the flyway. We will be working together diligently this winter to see that the laws are observed by sportsmen, and, after the season, that illegal hunting is kept at the lowest possible rate. We will never have enough agents to keep everybody from violating the law.

With that, Mr. Chairman, I thank you for the opportunity to testify and stand ready for questions at your descretion.

[Mr. Dunkle's statement can be found at end of hearing.]

Mr. CLEMENT. We'll withhold the questions until we complete the testimony of panel one, and then we'll ask questions.

Our next speaker to be recognized would be Mr. Roger Holmes, Chief, Wildlife Section, Minnesota Department of Natural Resources. You're recognized for 5 minutes, Mr. Holmes.

STATEMENT OF ROGER HOLMES, CHIEF, WILDLIFE SECTION, MINNESOTA DEPARTMENT OF NATURAL RESOURCES

Mr. HOLMES. Thank you, Mr. Chairman. I'm Roger Holmes. I'm Chief of the Section of Wildlife for the Minnesota Department of Natural Resources. I'm also our State's representative to the Mississippi Flyway Council and serve as vice chairman on the habitat committee for the International Association of Fish and Wildlife Agencies.

The problems of maintaining waterfowl populations are many and varied. And in my talk I'm going to list them in descending order of importance as they relate to the current situation. I will limit my comments to ducks because they, as a group, are in the most serious decline, while most populations of geese are stable or increasing.

Number 1, drought is the paramount problem at this time. The current drought has been the most severe since the 1930's and began seven years or more ago over much of the mid-continent area, the same area where over half of North America's ducks are produced. The species that is the most impacted, the pintail, is also tied the most closely to the drought stricken prairie and is the least adaptable prairie breeder.

Number 2, long-term habitat destruction is insidious. It occurs just a tiny bit at a time, but adds up to 500,000 acres nationwide each year. This permanent loss accounts for much of the long-term downward trend in duck populations, especially prairie nesters. There are three basic waterfowl habitat types: breeding, migratory and wintering. Outright destruction of all three has been widespread and well documented. Deterioration in quality of the habitat is less obvious and is not as well documented.

My own expertise is in the preservation and management of breeding habitat. I have been involved in a lot of programs over the last 29 years, and the premier program is the Save Minnesota's Wetlands, a fee purchase effort that began in 1951. Since then, our State has acquired in fee title 550,000 acres in 1,025 separate projects at a cost of over $40 million. I cannot begin to report to you on the volume of data on breeding habitat, so I will only say that the quality and abundance of wetland habitats and their associated nesting habitats hold the key to duck production in Minnesota and the entire mid-continent area. The use of lands adjacent to these wetlands is especially important for providing nesting cover and protecting them from the effects of erosion.

Number 3, predation of nesting ducks and their eggs probably ranks next in overall impact on duck populations. It is tied closely to quality and quantity of cover, but must be highlighted as a major problem. Nesting success on the prairies has declined steadily in the last 30 years. It is now less than 10 percent for some species, as shown in recent nesting studies.

The fourth point, poaching is more spectacular than the preceding problems, and has considerable impact. And we've heard a lot about that problem in the last few months. It is the first one here that we have very much hope for controlling in the short term. It is a national problem and must be addressed by the U.S. Fish and Wildlife Service and State game agencies.

Number 5, diseases and other natural mortality are quite subtle, but ever present and very significant. Botulism, duck viral enteritis, fowl cholera and lead poisoning are some of those that account for this type of loss. Accidents involving powerlines, highway traffic and hay mowers, particularly this last year, take heavy tolls.

Number 6, legal hunting is designed to harvest surplus birds and theoretically should not cause long-term habitat decline. Waterfowl management, however, is not an exact science and some legal harvest is going to be excessive on some species and populations of ducks nearly every year. As the other factors get worse, the effects of legal hunting are magnified, hence the very restrictive seasons this year.

I will mention six remedial actions that you as Members of Congress can take.

Number 1, implement a multi-year set-aside program as part of the 1985 National Farm Act. You gave the United States Department of Agriculture authority for a multi-year set-aside program in 1973, but they have not used it, so you must mandate it. An average of 30 million acres of land has been idled in recent years in the United States with 54 million in that category in 1988. Up to half of this acreage should be in a strategic forage reserve enabling producers to plan 3 to 5 years ahead and establish high quality cover for soil conservation purposes and wildlife nesting cover. That acreage would then be available for emergencies such as we had this last summer. In normal years it would produce millions of ducks and other ground nesting birds like pheasants, quail, sharptails and nongame species. Meanwhile, the Conservation Reserve Program, or CRP lands, should be off limits to mowing and left for conservation purposes. The mowing of CRP lands in Minnesota this summer, according to our estimates, destroyed an estimated half a million ducks.

Number 2, the United States must make full payment of federal revenue sharing on acquired Federal lands. The Waterfowl Production Area Acquisition Program in the Upper Midwest is critical to preservation of valuable wetlands. However, county government are strongly resisting further fee purchases because they are receiving only 60 percent of the payment to which they are entitled. For 1988, only $8 million of the $15 million entitlement was paid. Three top duck producing counties in west central Minnesota have completely shut down Federal acquisition, and they cite tax losses as the main reason.

The North American Waterfowl Management Plan is the greatest hope we have for reversing the downward spiraling of ducks and other waterfowl and their habitats. This program is up and running and has generated tremendous excitement in the conservation world, but major financial support from Congress will be necessary.

Also badly needed, is a national wetlands protection act that includes policy and sufficient funding to achieve a no net loss of wetlands within critical regions of the United States.

Also, more law enforcement is needed at the Federal level. The number of Federal agents per State is pitiful—three in Minnesota, for example. States do all they can, but Federal agents are the most effective on waterfowl violations. The complement should be at least doubled along with necessary equipment. It distresses us to hear that the $400,000 for the helicopter, the intent is to take that out of existing funding. I think that that's a serious mistake.

And finally, the U.S. Fish and Wildlife Service deserves your ongoing support for the restrictive regulations implemented for the 1988–89 waterfowl season.

I thank you for the opportunity to share these comments with you.

Mr. CLEMENT. Our next speaker will be Ms. Virginia Van Sickle, secretary, Louisiana Department of Wildlife and Fisheries. Ms. Van Sickle.

STATEMENT OF VIRGINIA VAN SICKLE, SECRETARY, LOUISIANA DEPARTMENT OF WILDLIFE AND FISHERIES

Ms. VAN SICKLE. Thank you. I'm from Baton Rouge, LA and have been secretary for the Department of Wildlife and Fisheries for 6 months now. I am very pleased to be here to present the views of our department regarding the U.S. waterfowl situation. And I, like Mr. Dunkle, have a couple of technical people from our staff here, I'd like to bring up if we have questions that are purely of a technical nature. I also would like to request formal acceptance of our statement for the record.

Mr. CLEMENT. Testimony will be accepted into the record, without objection.

Ms. VAN SICKLE. And continue to summarize the points we'd like to make today.

It's our firm belief that we must accurately identify and communicate to the American public the true causes of the decline in migratory waterfowl in this country, and then take immediate action to address these causes. Our concern is both for the future of the sport of waterfowling and for the loss of waterfowl as an important component of our Nation's natural resource heritage. We must also remember that the loss of waterfowl is an indicator of a more serious far-reaching concern and that is for the loss of this Nation's wetlands. This habitat loss not only affects ducks, but ultimately affects many species. From the black bear in the Atchafalaya Swamp to Backman's warbler, the swallowtail kite and many other birds that use our wetlands on their migratory routes. The productivity of wetlands in Louisiana even determines the continued existence of fur bearers and our fisheries. Most of the subcommittee members are from coastal States and they can appreciate the relationship between your coastal resources and the estuary and wetland complex. More of the same in terms of token concern and response to the continued and unchecked destruction of wetlands will indeed lead to the future loss of our natural heritage, and most definitely to the loss of our waterfowl.

We feel that there are three specific aspects of the current waterfowl situation that warrant our attention here today. They include, first of all, the recent controversy over the fall hunting regulations, the continuing controversy regarding illegal harvest, especially allegations involving our State, and the issue of continuous habitat destruction.

Hunting regulations have received a great deal of attention during the past 6 weeks. The drought has caused dramatic reduction in waterfowl production, and in response season lengths and bag limits have been sharply reduced. We fully support the need to take such action. As a member of the Mississippi Flyway Council, we strongly supported the general framework proposed by the Fish and Wildlife Service staff, as did most Flyway Council members.

Louisiana is, without question, being hit very hard this year by the new regulations. For example, we will not have the traditional 9-day September teal season that has been operational for almost 20 years now. Five days were cut from our west zone season, and the loss of the point system essentially reduces the potential bag limit from four to three birds per day. Hunting days statewide are

being reduced from 40 to 30, and rather than the Fish and Wildlife Services stated goal of a 25 percent reduction in harvest, we predict the reduction in harvest in Louisiana is going to be greater than 50 percent.

I interact daily with the sportsmen's groups in our State, and have received one single letter of complaint about the new regulations. This is from one sportsman, not representing a group, wondering about the sunrise shooting regulation.

A great deal of media attention has been focused on the illegal harvest of waterfowl, with much of the attention now being focused on Louisiana. Let me set the record straight. Law enforcement reform has been a priority of ours from prior to taking office, which would have been about 8 months ago, when the first transition team meetings started. Our law enforcement efforts this fall will be second to none. I've recruited a former assistant attorney general to heard up our enforcement division, and we are continuing to place increased emphasis on key waterfowl areas and the enforcement of our migratory waterfowl and other migratory species, including doves. We have 231 agents in the field, and compared to the national average, it's high. So we have the people there, it's just giving them the resources they need and the support they need to do a good job. Close coordination and cooperation with Federal personnel will be the standard. Our ticket tracking system has been totally revamped and is very tight and eliminates the potential for political interference. We're building a closer working relationship with U.S. attorneys and U.S. magistrates who prosecute our migratory bird violations. Again, there will be no political interference, and that commitment comes directly from Governor Roemer himself, as well as me. While some dwell on the exaggerated horror stories of the past, we are focusing our concerns on something we can do something about, and that is conserving waterfowl now and in the future.

We have two top priorities at this point. And they are law enforcement and conservation education. These plans were charted by Governor Roemer's transition team last fall, not prompted by a series of articles of any sort.

The third issue I wish to address is, in my opinion, the true cause for concern. Drought, even as severe as it is at this point in this country, will end and the snow and rain will once again come to the prairies and presently diminished waterfowl populations will rebound. But once a wetland has been eroded or ditched, or drained, or filled, or levied, or destroyed in other respects, the loss is forever. We have seen half of this Nation's wetlands destroyed in this century alone. Over 100 million acres have already been lost and the destruction continues. And the same is occurring on the Canadian prairies. In our own State alone we are experiencing an estimated loss, at last calculation, of roughly 50 square miles of wetlands per year. This is just in the coastal zone alone. This is due to man related and natural causes. And, Mr. Oberstar, the natural causes are very significant, too, with the rise in sea level occurring on global basis, as well as the changing course of the Mississippi River, which the Corps has intervened in with nature and is causing a tremendous problem for us.

If we agree that loss of wetlands is a major cause for decline of migratory waterfowl, we must also come to term with what actions can be taken. We all have our lists, and I have one starting with the swampbuster provision of 1985.

We feel that it must be strictly enforced. In excess of 85 percent of the nation's wetlands losses——

Mr. CLEMENT. How much longer is your testimony?

Ms. VAN SICKLE. About 2 or 3 minutes.

Mr. CLEMENT. Well, we don't have that much time.

Ms. VAN SICKLE. I'm sorry.

Mr. CLEMENT. We've got a vote, and we'll stand in recess for 10 minutes. Thank you.

[Recess.]

Mr. CLEMENT. Will everyone sit down, we'll start the hearing. We had three votes, that's why the delay. Ms. Van Sickle's testimony was almost completed, and we want to move on as expeditiously as we can, so if all of you can keep your remarks as brief as possible, the Chair would deeply appreciate it. And then we also, various Congressmen have questions that they want to ask as well.

Ms. Van Sickle, go right ahead.

Ms. VAN SICKLE. OK.

I had started to discuss some recommendations that we have from Louisiana regarding some actions that could be taken to deal with the waterfowl problem. And began by discussing the swampbuster provision of the 1985 farm bill, which we feel should be more strictly enforced. According to documentation provided by the Fish and Wildlife Service personnel, that in excess of 85 percent of the national wetland losses had occurred in agricultural areas. And that the swampbuster provision should be amended, not just to prohibit, but to penalize those who are responsible for wetland destruction, and not just those who produce crops on converted wetlands.

The Conservation Reserve Program should be administered so as to allow existing and previously drained wetlands areas with a history of cropping to be included regardless of their erodibility status. It's a little minor change that RSCS and ASCS seem to be amenable to that we would like to see. We could potentially restore 400,000 acres of forested wetlands in Louisiana alone with this change.

In our State we're working very closely with the Fish and Wildlife Service and the Farmers Home Administration to protect and restore wetlands on Farmers Home inventory property. I understand a similar success story applies to Minnesota. In every State, particularly in States such as North Dakota and other waterfowl production States, the same type of thing must occur. Congress' actions here were very helpful last year, and the appropriation that you made of $2 million, even though it didn't get through OMB is appreciated by the waterfowl producing States, and those of us who enjoy this resource.

The wetlands mitigation and enhancement provisions of the Water Resources Development Act of 1986 must be funded. There are more than 600,000 acres of authorized wetlands acquisitions involved in this program alone.

The Emergency Wetlands Resources Act of 1986 could make a difference, but again only if funding is appropriated and actually is accompanying the National Wetlands Priority Conservation Plan that is presently being developed.

I noted earlier that the catastrophic loss of coastal wetlands that is occurring in our State, is at the average of at least 50 square miles per year. And here we have some of the finest waterfowl wintering habitat on the North American Continent. The State has recently formulated an action plan to address this issue, and it is presently under review. We presented it to the Corps of Engineers last week. And ultimately with your full support, including the availability of Federal funding, this will be necessary in order for us to be successful in restoring and protecting some of our coastal wetlands that are at stake.

Mr. Chairman, we are indeed at a crossroads, and if we continue down the road of unchecked wetlands destruction we will surely lose our waterfowl heritage. If we fail to adequately fund the implementation of existing laws and programs that can make a difference, there is little hope.

In closing, let me quote one brief passage from the document that should serve as the cornerstone for all of our efforts to conserve this Nation's waterfowl resources. The document is the North American Waterfowl Management Plan. Secretary Hodel and Canada's Minister of the Environment, Tom McMillian, approved this joint venture plan in May of 1986.

"Reversing or modifying activities that destroy or degrade waterfowl habitat is imperative to the future success of waterfowl management. Efforts to resolve problems facing waterfowl have evolved from a focus on limiting the harvest to a need for creative action if current benefits from this resource are expected to continue. All other efforts will be in vain if the ongoing trend of habitat loss and degradation is not reversed." And this we feel is the bottom line.

It's really time for us to stop talking and start rebuilding our waterfowl habitat base. We think we need to get this message through to the President's Office of Management and Budget and illicit some cooperation here. And we feel like this subcommittee is in a good position to start the crusade.

We were a little apprehensive about this hearing, but we also looked at it as an opportunity to really focus on some of the problems that there are remedies to. Admittedly, law enforcement is one of those problems, and we're dealing with that. But more importantly, I think, for the waterfowl resource, is habitat.

That concludes my statement.

[The prepared statement of Ms. Van Sickle can be found at end of hearing.]

Mr. CLEMENT. Thank you, Ms. Van Sickle.

Our next speaker, Mr. Kenneth M. Babcock, assistant director, Missouri Department of Conservation.

Mr. Babcock.

STATEMENT OF KENNETH M. BABCOCK, ASSISTANT DIRECTOR, MISSOURI DEPARTMENT OF WILDLIFE CONSERVATION

Mr. BABCOCK. Thank you, Mr. Chairman, members of the subcommittee. I appreciate the opportunity to address the important subject of declining waterfowl populations in the Mississippi Flyway. I am Kenneth M. Babcock, Assistant Director of the Missouri Department of Conservation, and I, too, am a member of the Mississippi Flyway Council. I have been professionally involved in waterfowl management in a variety of biological and administrative positions for the past 20 years. I also have submitted a more lengthy testimony and do respectfully request that it be submitted as a part of the record.

Mr. CLEMENT. It will be accepted into the record, without objection.

Mr. BABCOCK. The plight of North American ducks is of great concern to those who cherish the annual migrations as a ritual of the changing seasons. This doesn't just include waterfowl hunters, but other outdoor enthusiasts, naturalists, and bird watchers as well.

The magnitude of the population declines of North American ducks and particularly those in the Mississippi Flyway, have been well documented and are a matter of public record, and I won't go over those figures today. But it is important to point out that at least three very important species in the Mississippi Flyway are at all time record lows during the 1980's, those being the mallard, the pintail, and the blue-winged teal.

The situation that faces us in 1988 is dramatic evidence of the extended drought that we've heard about today on several occasions. During this period of this decade, wetlands and upland nesting cover have been further degraded while agriculture acreages have expanded. The Canadian prairies alone, nearly half of the wetlands basins and more than three-fourths of the wetlands fringes that are so important for providing nesting waterfowl habitat have been affected during recent years. An average loss of over a half million acres of wetlands annually in North America alone does not bode well for a continent's waterfowl populations. Drought in 1988 and the impacts that I've mentioned earlier ensures that the deteriorated conditions that we see on the wetlands in North America will continue into 1989 and probably beyond that period.

Today's situation, as we've all heard it described, is a complex story, and it involves social, political, economic, agriculture and meteorological considerations, as well as duck biology. And the first inclination, as it is often, when you have a problem like this you should try to single out one major reason for it, either the farmer, or the hunter or the poachers, or lack of law enforcement efforts. But the issue is certainly more complex than that, and there is no quick fix to the problem. Comprehensive solutions will be necessary to deal with this complex problem.

The Prairie Pothole Region of the Northcentral United States and Southern Canada produces more than half the continent's duck flight each year, on a normal year. This region also, however, possesses some of North America's richest agricultural lands. Wetlands are nonproductive from an agricultural standpoint in many

areas, because they interfere with farming efficiency or they restrict the use of machinery, or they reduce acreage that can be devoted to crops. Often times ducks that are associated with these wetlands will compete directly with farmers by depredating on the crops. Certainly this kind of conflict over the years has led to generations of wetlands draining, ditching, leveling and elimination of upland nesting cover.

The question would come how can ducks and farming coexist? And the answer to that question is that they absolutely must, because their problems are rooted to common issues. Agricultural lands and waterfowl populations share a common bleak future if problems with soil and water are not addressed. The upland nesting cover that provides habitat for prairie ducks also conserves the prairie soils. In Canada alone, they estimate now that in the prairie regions that $1.3 billion of productivity is lost each year due to problems with soil fertility. I would ask that you keep that figure of $1.3 billion in mind, because it will have a little significance later on in my testimony.

Further south, wetlands have fared no better. Loss of bottomland forests important to wintering mallards has occurred at a rate exceeding the wetlands loss even in the prairies. In my State alone, in Missouri at one time we were blessed with 2½ million acres in the southeast part of our State known as the Boothill Region. Today less than 100,000 of that acreage is left and all of that virtually is in public ownership, either in national wildlife refuges or State conservation areas.

The rivers of the Lower Mississippi Valley once spilled with regularity over expanded forested floodplains. Today the rivers are confined by channels or levied to increase the agricultural land base and assist in flood control. The forests are gone in most areas and many remnant wetlands have been eliminated. Projects of the Corps of Engineers in the Lower Mississippi Valley continue today to degrade habitat. Mitigation for habitat destroyed by Corps of Engineers efforts, such as the Yazoo Basin, if that project should continue at all, is vital that the mitigation continues at the same rate that project construction does.

Coastal wetlands are still expansive. However, we've heard today that increased development have contributed to rising salinity which changes the plant and invertebrate structure and decreases overall values to waterfowl.

Hunting restrictions are viewed by many people as a logical step to move to take when we see populations decline to the levels that they are. And historically, we certainly have done that, restricting during years of drought and low populations and liberalizing when things improve. It's very difficult, sometimes, when you look back through history, though, to determine whether waterfowl populations responded due to the improved habitat, or to the reductions in the harvest. It's important to realize, if we think about the restrictive regulations that will be implemented in 1988 and probably in subsequent years that these measures alone will not restore the duck numbers to acceptable levels. Relief from the persistent drought is going to be one of the key things, obviously, that has to occur. Hunting is one element that we can deal with, and that we

can deal with in the short term, and I think that we all support the efforts that have been taken in that regard.

Illegal duck harvests add a drain to the duck populations that offends the majority of the waterfowl hunters. I think in many instances waterfowl hunters have been painted with a broad brush in recent months, and I think that is unfair, because the large majority are appalled by illegal activities and would stand up and say that. Poaching, however, is not just limited to one part our flyway or one part of our Nation, and I think it's very important to keep that in mind. At our recent meeting the Mississippi Flyway Council endorsed the policy whereby we would encourage research into the effects of poaching and other aspects in terms of effectiveness of law enforcement. Other aspects drain on our waterfowl populations, disease, pollutants, acid rain, and those kind of things, all this is drain on the population, and many of these we don't really fully understand.

But it would be easy to get caught up into the awful part of this situation because it is disheartening, but it's not without some optimism. Society has, I think, shown indications that they recognize that ecological and economic roles the wetlands play. They've learned that these areas recharge important groundwater, and metabolize pollutants, and provide other good things. And I think it's important to see that. Also our agriculture policy is changing. The provisions in the 1985 Food Security Act, such as the sodbuster and swampbuster, the CRP program, and the compliance provisions. All of these have been mentioned, and I won't go into the detail of those, but those are certainly significant programs that make sense. They contrast quite greatly with other Federal programs where the objectives of individual agencies often run contrary to one another. For instance, the USDA subsidizing wetlands drainage while the Department of Interior is working very hard trying to retain those that are still there.

The North American Waterfowl Plan that you've heard about today, is probably the cornerstone, I think as Virginia said, to the future, as far as our managing waterfowls are concerned. It sets very objective population objectives and these population objectives are tied to habitat objectives. Again, habitat being the key. This plan calls for a framework of cooperative funding for habitat initiatives, and these joint ventures combine the efforts of State, Federal and private resources. As always, though, if we're going to be serious about the North American Waterfowl Plan, we've got to find funding. It's estimated that $1.5 billion, over the next 15 years, will be necessary to fund that plan. I mentioned earlier a figure of $1.3 billion lost in fertility of soils, and it's kind of ironic that those figures are so close, what it would take in terms of paying for the North American Waterfowl Plan.

We stand ready to work with Congress to deal with this, and it's going to be imperative that Congress take the lead in appropriating many of the dollars that are going to be necessary to fund this plan. And that along with these appropriations need to come the authority to spend these dollars in Canada, because most of the waterfowl resource that we enjoy here in the United States does in fact come from Canada.

In closing, let me just say that duck numbers in the Mississippi Flyway and elsewhere in North America have declined to historic lows. And a variety of causes are there, and I don't think we need to zero in on any one particular one other than the habitat issue. The drought will end, as has been said, but when the drought ends, there needs to be that habitat base there for us to deal with.

We've also seen, I think, a better dialogue between agriculture and conservation. And I think it's important to deal with that. Decisions made in the future must be considered for the total good of society, and they must be made with harmony with regard to agriculture and wildlife. The road to recovery certainly will be long, but I and others in the conservation community stand ready to work with Congress. We think we're heading in the right direction.

Thank you, Mr. Chairman.

[Mr. Babcock's statement can be found at end of hearing.]

Mr. CLEMENT. Thank you, Mr. Babcock.

Our next speaker, Mr. Vernon Bevill, executive director, Mississippi Department of Wildlife Conservation.

Mr. Bevill.

STATEMENT OF VERNON BEVILL, EXECUTIVE DIRECTOR, MISSISSIPPI DEPARTMENT OF WILDLIFE CONSERVATION

Mr. BEVILL. Thank you, Mr. Chairman, members of the committee. My name is Vernon Bevill and I am Executive Director of the Mississippi Department of Wildlife Conservation. I'm a member of the Mississippi Flyway Council and like the others, I appreciate the opportunity to present my comments to this subcommittee, and appreciate their incorporation into the official records of this meeting.

I would like to give you my reasons for why I feel that duck populations are depressed in North America at this time. Let me first start by saying that I do not believe that the majority of North American duck hunters are rogues and illegal hunters. We all realize that some lawless individuals are present among all facets of our society. Such individuals may rob banks, or others may take ducks illegally, but they certainly do not constitute a majority in society. While waterfowl violators' potential impact on the duck resource is disturbing, I believe appropriate law enforcement and sportsman education will keep these problems from ever being a significant reason for the depressed duck population. Current duck populations are a symptom of a far greater problem that must be addressed very soon.

Gentlemen, the problem with the depressed duck populations is a continuing loss of North America's wetlands, as you've already heard. This country is operating in a "Catch 22" scenario regarding how we treat our wetlands. The U.S. Army Corps of Engineers and other Federal agencies are annually spending billions of dollars in altering and draining wetlands, while on the other hand U.S. Fish and Wildlife Service and the Canadian Wildlife Service have implemented a North American Waterfowl Management Plan designed to restore, protect, maintain and enhance North American wetlands over a 15 year period at a cost of about $1.5 billion. Conservation agencies in Canada and the United States, along with many

State and private conservation groups, are in support of this innovative plan. However, support of a plan and implementation of a plan are two different critters. Support is an inexpensive commitment, but implementation will be a costly commitment. The Federal Governments of both countries need to budget the adequate funding required to maintain and increase the wetlands base of North America. Frankly, all of us should realize that the $1.5 billion North American Waterfowl Management Plan cannot, in itself, the billions of dollars worth of destructive management that has already taken place. What this plan represents, in my view, is a low budget start at fixing a problem of gigantic proportion.

The basic axiom of waterfowl conservation is that waterfowl need wetlands. For the last 40 years our Government has subsidized, and at times encouraged the destruction of wetlands. For example, the Flood Control Act of 1944 is generally cited by the Corps of Engineers as authority for flood control and drainage for agricultural purposes. The practical implementation of this law has caused the widespread destruction of our fish and wildlife habitat because the objective was actually the conversion of bottomland hardwoods to agriculture. Since then the policy of bottomland hardwood conversion has been confirmed and underscored in projects authorized by the Flood Control Act of 1965, which has included as an essential part of its economic justification the induced clearing of some 49 million acres of bottomland hardwood. Today, while crop surplus coupled with other world economic factors continue to hamper the agriculture economy, Federal flood control efforts remain focused on projects that attempt to justify continued reductions in certain types of critical wetlands in order to intensify agriculture on high risk croplands.

Recent efforts by Congress, such as the Water Resource Development Act of 1986 and the swampbuster provisions of the 1985 farm bill have indicated a late and slow awakening of understanding that conservation policies must be reflected in water resource development projects and agricultural programs. Yes, at first test, the lands protected by these new provisions were reopened to grazing and haying during the critical duck nesting period when this summer's drought causes an uproar here in Congress. This type of congressional flip-flopping, which caused about 1 million ducks, more or less, to be lost to this fall's flight, simply underscores a critical need for visionary leadership in Congress to provide long range protection to critical wetlands and soil resources.

According to the Fish and Wildlife Service, less than one-half of this country's estimated 215 million acres of wetlands remain, less than 99 million acres as of the mid-1970's. And we're still losing wetlands at the rate of about 500,000 acres per year. In the upper Midwest where about half of the waterfowl are traditionally produced, wetlands losses have been proportionately even greater. Of North Dakota's original 5 million acres of wetlands, barely 2 million remain, while in Minnesota only 1.4 acres of an original 8.7 million acres are left. In Iowa only 70,000 acres of an original 1.1 million acres remain. Is there any wonder why ducks need help when you consider these losses of critical breeding habitat? At current rates of loss we will be down to only about 87 million acres of America's original 215 million acres by the year 2000.

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Gentlemen, I ask you when will enough be enough to make Congress act and take appropriate action? Do you want the next century's Americans suffering the consequences of your lack of action in protecting America's wetlands. I pray not. We, as responsible legislators and ourselves, as resource managers, are obligated to pass on to our Nation's children a viable and productive wetlands base for all citizens of North America to use wisely. I hope you can, by now, see that we do not have the time or luxury to leave this problem to the future legislators and resource managers to tackle and solve. Please realize that we cannot correct 100 years of poor planning and misuse of a misunderstood resource, wetlands, by a token contribution of $1.5 billion over a 15-year period to the North American Plan. Also realize that our water resource problem is fast becoming unsolvable in our children's lifetime. Continued stalling will extract a staggering cost to the economy and to America's quality of life that we so cherish.

For too many years we have thought of wetlands as a place of mud, mosquitoes, snakes and alligators, when in fact, wetlands are perhaps our most precious of God's resource gifts. What we need at this time in our history are a few good men in Congress who are visionary leaders and who truly love a challenge. For, gentlemen, this Nation and continent is in critical need of a coordinated wetlands policy that contains language that is suitable to and addresses the concerns of the agricultural, fish and wildlife, urban and recreational communities. Federal and State agencies need to start singing from the same sheet of music when such a policy is developed and implemented. It is vital that this policy contain the real teeth needed, if there's any hope of reversing the trends they have now reached at this tragic proportion. A clear and coordinated policy would probably prevent the waste of at least a billion dollars a year by preventing implementation of water projects that were designed back when mules and biddle busters were the main means of tilling the soil.

It is time for Congress to develop a collective resolve to place wetlands preservation and enhancement on the political front burner. Your resolve to deal with the real issue is the only way to assure success for wetlands and waterfowl enhancement in North America. Starting in the current budget I would love to see you put at least $250 million annually toward full implementation of the North American Waterfowl Plan. I realize that sounds like a lot of money in a tight budget year, but when you consider that it's probably representing only about a day's worth of the Defense Department's budget, I really don't think it's that much money for the purposes that it can provide for the future of America.

Mr. Chairman, it has been suggested to me that this meeting was going to end up being one of those meetings where the North was pitted against the South again, and some folks were going to get an opportunity to kick sand in the face of southern sportsmen. I truly hope that your purposes have a higher calling because in the 21st century we all will still need Mother Earth for our living quarters. The key resource for the habitability of our home is useful, productive water resources. Both man and beast have been tied to wetlands habitats since the beginning of time and this tie will never be changed. Surely you must see wetlands as one of the major corner-

stones in God's plan. It is past time for Congress to seriously address the wetlands issue and develop a visionary program. Please use these hearings to initiate these ends. On behalf of the agency that I represent and our interests in this matter, I thank you for the opportunity to appear before you today.

Mr. CLEMENT. Thank all of you for submitting your testimony.

Mr. Dunkle, you heard Congressman Don Young from Alaska talk about the atrocities in Mexico, concerning hunting waterfowl. Do you agree with that?

Mr. DUNKLE. I do agree that Mexico has had a more liberal outlook on hunting than we do, but we have been working closely with that country. This year they have imposed, from their viewpoint, a rather severe limit, on pintails and teal. They have reduced their bag limit to five birds a day, which is far below what has been done before.

Mr. CLEMENT. Well, do they enforce it, too? You know, we all hear stories about going down there and hunting and then they leave their birds there, and they set the limit by how many they bring home, not how many they kill.

Mr. DUNKLE. I would not want to get into an international discussion about whether Mexico does or does not enforce their bag limits. I think that it is important that we enforce limits on hunters who return to the United States, and I would hope that the hunters from the United States would follow some kind of a hunting ethic.

Mr. CLEMENT. But if we're going to solve the problem, we're going to have to have their cooperation as well, aren't we?

Mr. DUNKLE. That is what we are trying to do. We have an agreement with them on habitat issues and we are working closely with them on many projects.

Mr. CLEMENT. The 1985 farm bill authorizes the placement of restrictive deeds on Farmers Home Administration inventory lands to protect the wetlands resources on those lands. Which States would the implementation of this provision be most beneficial to wetlands preservation?

Mr. DUNKLE. Which State?

Mr. CLEMENT. Which States?

Mr. DUNKLE. I think that this action would be important in any of the States in the Prairie Pothole Region.

Mr. CLEMENT. How successful has the program been in those States, any State, that you want to speak of?

Mr. DUNKLE. I suspect that you are referring to North Dakota.

Mr. CLEMENT. Yes, that is correct. That's one of them, because I understand this program has not been implemented at all in North Dakota. Is that the case? And if so, why?

Mr. DUNKLE. That is the case, and that is because the State has an injunction against the Farmers Home Administration to prevent them from foreclosing on any farms that have not been keeping up with their payments. The general feeling is that the Federal Government should not be putting the family farm out of existence, and that they should not be taking farmland from farmers. No authority exists, therefore, to foreclose on any lands that become inventory lands, and there will be no action there until the injunction is settled.

Mr. CLEMENT. Mr. Dunkle, the series of articles published by the St. Paul Pioneer Press Dispatch paints an astounding picture of the magnitude of illegal duck harvest in Louisiana. The Fish and Wildlife Service has been criticized for failing to assess the impact of this illegal hunting on waterfowl populations which are experiencing a drastic decline. What is your response to that criticism?

Mr. DUNKLE. Mr. Chairman, I think that we have taken all of the positive steps that we can, given our budgetary situation. We have increased the extent of law enforcement activities in the areas where illegal hunting is going on, especially in the wintering areas. We have also worked with the States on task forces. We have a number of covert operations in many of the duck hunting areas throughout the flyways.

The Service and the States are working on educational programs. There is no data to indicate the total amount of illegal kill.

There are two kinds of illegal kill that we are talking about. One type is during the season and the other one is after the season. We have tried to address both of these. I do not know how to get a handle on this because an illegal hunter is not about to tell you much about his business. So therefore, we can only try to make the situation uncomfortable for illegal hunters. Perhaps Congress needs to consider stronger penalties for our waterfowl laws. There has not been any change in the fines assessed for illegal hunting since 1918. Perhaps financial penalties are not enough. I think that if penalties were authorized which required confinement for a given number of days, you would have more impact in reducing illegal hunting.

In conclusion, we are addressing this problem, but I do not know a way to do any more than we are doing, without further authorization.

Mr. CLEMENT. According to Mr. Bevill's testimony, of the original 8.7 million acres of wetlands in Minnesota, only 1.4 million acres still exist. Is that correct? Some of the others might want to comment.

Mr. HOLMES. I'm Roger Holmes, the Chief of Wildlife in Minnesota. That's approximately correct. That is based on prairie wetlands, not the total number of wetlands in the State. We have lost between 80 and 90 percent of the prairie wetlands that we once had.

Mr. CLEMENT. What is the likelihood that these remaining acres will be preserved?

Mr. HOLMES. Mr. Chairman, the present rate of loss of prairie wetlands in our State is about 2 to 3 percent. In the early 1970's it was around 5 percent, so there has been some improvement. But unfortunately, we are losing wetlands to this day, although in Minnesota, we have a law now that prevents the drainage of any wetlands that are over 10 acres in size. They are protected under State law. They're called protected wetlands, and those wetlands so classified through our inventory system cannot be drained without a permit from the Commissioner of the Department of Natural Resources. So we are slowing the rate of drainage substantially.

Mr. CLEMENT. The gentleman from Louisiana is recognized.

Mr. TAUZIN. Mr. Holmes, I might want to follow up on that. One of the big complaints we hear, and I didn't note much conversation from the panel on it, is that the 404 permit authority of the Corps

of Engineers has been interpreted by the Corps as in effect not to apply to agriculture, when in fact the lands are simply drained rather than filled for agriculture purposes. Is that correct, and why is that not a subject of much concern by all of you on the panel? And you might want to all address this.

It seems to me that this massive loss, 80 percent of wetlands lost, is supposedly attributed to agricultural conversion. If this massive loss is occurring, and we want to stop it, it seems to me that 404 permit system, which prevents many other wetlands conversion usage, would be an appropriate way to stop it, if in fact it applied to draining wetlands for agricultural purposes. Why has not that been a topic of discussion? If not, why not?

Mr. HOLMES. Mr. Chairman and Congressman, I believe you addressed the question to me, and I'm not an expert on 404, but that applies mainly to the placement fill in wetlands, and in some cases the Corps does not have jurisdiction over local drainage projects depending on how those projects are designed. I would also point out the Corps in Minnesota, at least, got off to a very slow start as far as implementing section 404. And they are doing a lot better now, but could still use more improvement. It seems that it takes a lot of public pressure to get them to carry out their mandate. And I would agree that if section 404 were to be fully implemented it would certainly help.

But in all cases, and as I understand in some of the other States too, that is not occurring.

Mr. OBERSTAR. Will the gentleman yield?

Mr. TAUZIN. I'd be happy to yield to my point.

Mr. OBERSTAR. In my capacity on the Public Works Committee as chairman of the Investigations and Oversight Committee, we conducted a hearing last week on the Corps of Engineers' administration of the 404 permit program, following a year-long inquiry into that program at our direction, by the General Accounting Office.

Many of the problems of 404 are attributable to the Corps' all too willing attitude of permitting rather than controlling. But agricultural lands were specifically withdrawn from Corps consideration in the 1977 amendments to the Clean Water Act. There's a distinction——

Mr. TAUZIN. Why?

Mr. OBERSTAR. To be drawn between discharge and drainage. Congress wrote that into the 1977 amendments. I didn't happen to agree with that language, but it was part of the bill that passed.

Mr. TAUZIN. Well——

Mr. OBERSTAR. So just by way of explanation for the gentleman.

Mr. TAUZIN. Reclaiming my time, the problem occurs in that we live in a very wet State in Louisiana, and I see people with Batuer property in some of the parishes I represent, unable to develop their Batuer property for housing, which is where we traditionally live, along the side of the bayous on the Batuer—it's the driest, highest land—because of 404 permits. And yet, at the same time, massive acreage of wetlands are being converted out of wetlands into agriculture uses in Louisiana and all over the country without any control. There seems to be a mis-focus there, if the purpose is indeed to protect and preserve wetlands, we're going after the very

small cases and allowing the egregious violations to occur in the country.

And I wonder if any of you want to comment on that?

Mr. BABCOCK. In the State of Missouri we have, I think, six or seven Corps districts that we deal with right now, and we generally have to deal in six or seven different ways in terms of interpretation and enforcement of section 404.

Unfortunately, in Missouri, 404, even with its problems, didn't come along soon enough to save many of the wetlands areas that were impacted in our State.

Mr. TAUZIN. Gotcha.

Mr. BABCOCK. Also, the definition that's applied to 404 often times is very, very narrow. Dealing with certain vegetative types that would be there if the lands were not abused. And so, it is a big problem from the standpoint of the latitude that the various Corps districts have in terms of interpretation and implementation of 404.

Mr. TAUZIN. It seems to be.

Mr. Dunkle, you made a big point about the inability to purchase a helicopter from the budget. It's been brought up that maybe purchasing helicopters for 3 or 4 months active duty in the hunting seasons would be less cost effective than leasing and renting helicopters and other vehicles of that nature for the enforcement, the tough enforcement periods, when the seasons are actually open and hunters are out there.

What's your comment on that? Would it be better to lease and rent, and don't we do that already? And why do we need to purchase one?

Mr. DUNKLE. I have suggested the leasing possibility as an option. The amount of money to be raised would probably provide the opportunity to lease several helicopters during the wintering season. There is some reluctance, sometimes, for people to lease helicopters to us for enforcement work because people sometimes shoot at things like that in the air.

Mr. TAUZIN. Well, what's the bag limit on a helicopter? [Laughter.]

Mr. DUNKLE. There is a closed season on helicopters, and on people.

Mr. TAUZIN. It would seem to make better sense, the cost effectiveness.

Virginia, you were shaking your head. Would you like to respond?

Ms. VAN SICKLE. We lease helicopters to do our annual alligator count and that sort of thing, and we find that is much more feasible economically than to maintain the aircraft as well as the pilot full time.

Mr. TAUZIN. My knowledge of helicopters—I live in the oil patch, is exactly that. The cost of year round maintenance and all that is extraordinarily high. Leasing during the periods of active use might be a better option. I only make that point to you because I think you're probably right in pursuing it and would encourage you to do so.

In reference to your point, Mr. Holmes, about the need for national wetlands protection act. I might point out to you that Con-

gressman—Senator now, John Breaux and I have introduced legislation in this Congress which has not received attention, and we hope they give it a lot of attention next year, entitled, indeed, a National Wetlands Preservation Act. It would provide Federal match money to the States to begin doing extensive work at not only protecting the wetlands that remains but also acquiring and building a national wetlands reserve. And I point that out to you because we're going to need a lot of support from all of you in the flyway if we're going to indeed attack that particular problem.

In regard to the problem of the enforcement, Virginia, you know that we've received some criticism in papers in Minnesota, and I assume, as Mr. Dunkle pointed out, every State with a hunting season similarly studied might receive a great deal of criticism for enforcement efforts.

What are we doing to improve in Louisiana?

Ms. VAN SICKLE. Well, we've taken several immediate actions that were charted by the transition team. We changed the way we hire agents, for example. No longer do you have to reside in the parish in which you live to the an agent in that parish. We felt that was somewhat a conflict in the long run.

Mr. TAUZIN. Indeed it is.

Ms. VAN SICKLE. We're revising the way we pay the agents. Right now a beginning salary for our agents, they take home $450 every other pay period, which is every two weeks. So we're working on that end of it. The supervision from the top, we feel is very important. This is the third position I've held with the department, starting as a biologist back in the 1970's——

Mr. TAUZIN. I'm well acquainted with you.

Ms. VAN SICKLE. It's a new ball game. We have new people at the top who are very serious and committed to our law enforcement efforts. The training for our agents is another key thing that we feel, as States at the international meeting in Toronto last week, that the law enforcement committee has a training program evaluation. And that's the number one thing they've been working on in law enforcement, is the training end of it. We've got a helicopter for this fall, which is from November to December.

Mr. TAUZIN. Are you prepared for this season?

Ms. VAN SICKLE. Yes. And we will be forming task forces with Federal agents, just like we did in dove season. We had 50 of our agents working opening weekend of dove season just a couple of weeks ago with seven of Mr. Dunkle's Federal agents in the State, and we've made some very good cases and I'm sure they'll stand up.

With the U.S. magistrates and the U.S. attorneys, we've held seminars and every one of our agents, this past month, has been sitting with the U.S. attorney in his area being coached about how to write better case reports, what's legal and what's not legal as far as advising a landowner on what's baited and not baited, this sort of thing.

So, that's the kind of thing.

Mr. TAUZIN. I've been also asked to ask you, when, if ever, there was going to be a grosbeak season in Louisiana, but you needn't answer that question. [Laughter.]

I also understand you've become very active in the FHA's program to convert drained farm land back to wetlands status. And could you give us some idea about what's happening in our State with regard to that program?

Ms. VAN SICKLE. We have requested that 58 properties from the Farmers Home Administration inventory be transferred from that inventory to the State Department of Wildlife and Fisheries for restoration as wetlands and I attribute that action, which I understand we're the most active in the country at this point. I attribute this to one of our new staff, who's with us, Bob Misso, who is the Assistant Secretary for the Office of Wildlife, a Bossier City native that worked for Mr. Dunkle as his special assistant in Washington up until 6 months ago. So we're very active there and plan to continue that.

Mr. TAUZIN. And finally, when I was State representative in Louisiana, and you were a biologist on the staff in those early days of our careers, I often met with hunting associations and Ducks Unlimited groups, and the district attorneys in the parish that we represented and the parishes I now represent in the Third District, to talk about efforts at that level to increase enforcement of the tickets that were in fact issued for hunting violations or sportsmen violations.

Is your office active in that effort?

Ms. VAN SICKLE. About a month after I took office we met with the district attorney's association. But they just prosecute the State cases.

Mr. TAUZIN. Yes, I know that.

Ms. VAN SICKLE. OK.

But they—we had some problems there to, and they committed to helping us out and the DA's have actually sponsored some of the seminars on how to write better case reports, and we sent 200 of our agents through writing better State cases about 3 months ago. It was during the middle of the summer.

Mr. TAUZIN. Well, I want to yield my time—I've been here a long time—only to conclude two things.

One, I want to thank the entire panel. You've educated, I think, all of us on some of the problems. They're a lot more complex than I think we would like them to be. I'd like there to be some simple answers. They're apparently not going to be simple answers. We've got a lot of work to do to build back our wetlands inventory, and to in fact increase the ability of your agencies to do a better job in enforcement and for all of the States and Federal Government to cooperate in ways we have not yet begun to cooperate. I thank you for educating us on that score.

Secondly, Virginia, to tell you from a personal standpoint how very pleased our delegation is, here in Washington, with the new administration's efforts in this particular critical area. Not only in the Wildlife and Fisheries Department that you serve and represent now here, but also in the general effort the administration is making in the area of preserving Louisiana's wetlands and the efforts that I know are coming in regard to coastal wetlands—38,000 acres a year of coastal wetlands lost, is not just a Louisiana loss, it's a national disaster. And, believe me, next year in the 101st Congress, Senator Breaux and I are going to make a major effort at

bringing that loss to this Nation's attention. We will need all of your help to try to build a national program to begin addressing it, not just in Louisiana where the most severe problems occur, but erosion and wetlands loss all over America where it's beginning to impact people who never thought it would impact them, those people who don the camouflage and go out and enjoy a day hunting. I think you made a great case for that today, and I want to ask you to continue helping us with that.

Thank you very much.

Mr. OBERSTAR. Mr. Chairman.

Mr. CLEMENT. The gentleman from Minnesota is recognized.

Mr. OBERSTAR. Thank you, Mr. Chairman.

I must say, Ms. Van Sickle, that I'm greatly encouraged in what I hear from your testimony about changes that are taking place in your State and in your department with respect to enforcement: strengthening and professionalizing changing residence requirements, improving pay and training of agents and cooperation between agents and U.S. magistrates and attorneys. The reform of law enforcement as a priority of Governor Roemer is very, very much to be commended. I'm sure it would have been an equal priority with Governor Tauzin, but that didn't come to be.

Mr. TAUZIN. God loved me more than I knew. [Laughter.]

Mr. OBERSTAR. And I also want to compliment you on your Assistant Secretary for Wildlife. Mr. Misso is a long time associate in wildlife matters, and a person I've known for many years. I have enormous respect for his professionalism.

We have to control all the factors that we can control in protecting wildlife. I've devoted a good part of my 14 years in Congress to wildlife questions. Serving on this subcommittee, and working very diligently on legislation that if fully carried out would have been protecting a great many more acres of wetlands than we are now—the acquisition program, the loan program, the updating of the loan program every 5 years so, as Mr. Holmes testified earlier, we pay farmers closer to fair market value rental of that land than in fact we currently pay. The first 2 years of the current administration zeroed out funding, totally zeroed out funding for wetlands acquisition and for the loan program. Congressman John Dingle and I led the fight in the appropriations committee and on the floor to restore that money. Since then they haven't contested, but the money hasn't increased. It's going to cost money to restore wetlands. That is a longer term effort of both man and nature.

And controlling the one thing that we can deal with is something that I'm encouraged now to see that you are dealing with. What documentation do you have the numbers of birds that are taken illegally in an average year in Louisiana?

Ms. VAN SICKLE. I'm not aware of any statistical evaluation of illegally harvested waterfowl in our State.

Mr. OBERSTAR. Mr. Dunkle, does the Fish and Wildlife Service keep numbers, whether in Louisiana or throughout the flyway?

Mr. DUNKLE. I cannot estimate what that would be since we do not collect data in that manner.

Mr. OBERSTAR. Your testimony on page 4 suggests harvest of 12 to 16 million ducks in the "flyway", several years ago, and 12 to 13

million in the last year, but you don't indicate which flyway or a combination of flyways. What does that number cover?

Mr. DUNKLE. That number covers the entire United States.

Mr. OBERSTAR. It's in all four principal flyways?

Mr. DUNKLE. Yes. It does not refer to one flyway but we can break it down by flyways for you. I do not have that breakdown at my fingertips, but I can find it for you.

Mr. OBERSTAR. Well, surely you must be able to make some estimate. I mean, we're able to document the number of acres that are lost with wetlands destruction either to agriculture or drought, or encroachment by urban development and loss due to rising waters in the coastal wetlands, and the drilling and exploration for oil and gas, and pipelines from offshore onto land. We know that we can document those, surely we're able to document numbers of illegal take.

Mr. DUNKLE. No, it is very difficult to estimate.

Mr. OBERSTAR. I mean, after you arrest people and you make estimates, you know how many. What I'm trying to get is some relationship. If the kill is in the neighborhood of 12 to 16 million ducks, would you venture an estimate of illegal hunting anywhere near that range?

Mr. DUNKLE. No, sir, I cannot make an estimate.

Mr. OBERSTAR. Percentage of that amount?

Mr. DUNKLE. No, sir, I would not guess.

Mr. OBERSTAR. Roger Holmes.

Mr. HOLMES. Mr. Chairman, Congressman Oberstar, I don't really have any handle on that at all. It's something that we've tried to cope with in Minnesota, for example, on illegal kill of deer. And there again, it is just an estimate. Our division of enforcement has come out with some estimates that say that the illegal kill is anywhere from 25 to 100 percent of the legal kill but I feel that those figures are high, but all they are is just a guess. We really do not have any way to measure it.

Mr. OBERSTAR. Mr. Bevill.

Mr. BEVILL. I'd like to make a comment along these lines. I think it would be fair to say that, and it was mentioned earlier in the testimony, that back around 1970 there were roughly 100 million ducks in the fall flight. I think that we would all probably agree that over the period of time since 1970 with the increased professionalization of State and Federal law enforcement efforts, with the addition of new people all the time, and the fact that the number of hunters nationwide has somewhat declined in that period of time, the number of ducks killed illegally in 1970 probably far exceeded the number of ducks killed illegally last year or year before last, because of the things that have taken place since this. Hunter education is much more prominent today than it was 15, 18 years ago. But yet, in 1970 we had 100 million ducks in the fall flight, as compared to about 66 million today.

I think, if nothing else, it should focus us to the fact that ducks are in critical need of nesting habitat and winter habitat, then those things ought to point to that.

And if I can add a footnote while I've got the mike, and it's been talked about in a round about way, by the group, but I don't think it's been said, and this is kind of a country boy's logic about mete-

orology. When you look at the realization that in Prairie Canada where farming has tremendously intensified, and in the upper Midwest of this country where farming acreages has tremendously intensified the loss of wetlands and throughout the Mississippi Valley, doesn't it stand to reason that when you eliminate those wetlands that you have eliminated a tremendous component of the evapo-transfer process that we all learned about in eighth grade science that when water vapor goes up, it's got to come back down on the land——

Mr. OBERSTAR. I understand that very clearly. I understand very well and very keenly and feel with great regret and, in fact, anger that we have lost and lost needlessly so many acres of wetlands. That, as I said, we can document. We know where that is. We know what it's effect is. What we're trying to establish just very briefly is: what is the relative significance of illegal hunt, as compared to legal hunt?

Apparently we can't do that. The second question I want to raise with Mr. Dunkle is given the size of the duck population in the migration in the 1960's, 1970's, in the 150 million range over the four flyways, and it's down to 62 million—roughly in the sixties today depending on what number you use—and we're still shooting in the range of 12 to 16 million ducks! Doesn't that argue for even more restrictive action than has been taken in the flyways this season? The actions were very severe, I think, but the relative impact of kills in a smaller population, is far more severe on that population than it was 15, 20 years ago.

Mr. DUNKLE. Congressman, 15 or 20 years ago we were not shooting three ducks. We were instead shooting 6, 7 or 10 ducks.

Mr. OBERSTAR. Right.

Mr. DUNKLE. Several decades ago, our harvest was much higher. We also had more duck hunters in those days. You have to understand that when we calculate the estimated fall flight, we then determine how many we should be thinking about as a legal harvest figure. We, therefore do not take into account what may have happened on the wintering grounds. We do take into account the number of ducks fledged and the number projected for the fall flight, We then determine from that number the numbers of birds that we think can be harvested. We are taking into account the birds that were fledged from the number that went north.

We have been losing wetland acreage. We know that our spring hatch was poor and we know that the number fledged is the fewest in history. We determined that we had to take some steps to reduce the harvest a minimum of 25 percent. I have to agree with the State people since we probably will realize a 40 percent reduction. I think that people realize that it is necessary, and are accepting it, and I think that we have taken a strong stand.

Mr. OBERSTAR. I appreciate that answer. That's very helpful.

A final question—perhaps a comment and then a question.

Mr. Holmes, in your statement you indicated that harvesting hay and other cover crop on CRP lands may have destroyed as many as 500,000 ducks, is that right?

Mr. HOLMES. Yes, that's correct.

Mr. OBERSTAR. It seems to me that far exceeds any number of illegal take in any one area of the flyway.

Mr. HOLMES. Mr. Chairman, and Congressman, yes, that's correct. That's why I pointed it out, that a single action like that that would destroy that amount of nesting cover and nests right at the peak of hatch, has a profound impact on wildlife, not just ducks but a lot of other species. It was a tragic thing, and it's something that I feel should not have happened, and shouldn't be allowed to happen again.

Mr. TAUZIN. Would the gentleman yield?

Mr. OBERSTAR. I certainly agree with that. I yield to the gentleman.

Mr. TAUZIN. I caught the same thing, and it's an astounding number that a half million ducks would be lost because of haymowing. What has to be done to stop the haymowing at that particular time of the season?

Mr. OBERSTAR. What happened in this year—to respond to the gentleman—was that in the drought circumstances the Department of Agriculture, to help farmers who had lost croplands, allowed them to harvest their CRP lands. The harvesting of hay, alfalfa, and other ground cover at that particular time should probably have been delayed. However, if you waited any longer, the farmer would have lost that hay cover. That was land that would not have been cut but for the drought.

Mr. TAUZIN. Thank you.

Mr. OBERSTAR. My final question—we're going to have to have some sort of prioritizing in the protection of wetlands: Which are the most critical wetlands, Mr. Dunkle, that you would target first for protection? Which areas of the Central and Mississippi Flyways?

Mr. DUNKLE. Would you give me a couple of choices? Or are you going to make me say one, two, three?

Mr. OBERSTAR. Which ones?

Mr. DUNKLE. I would first target the breeding areas, the pothole area, and that means that we would have to address the agricultural operations in order to protect those wetlands. There are many good reasons for the communities in those wetlands to be protected. You can create positive changes in water tables, in opportunities for other wildlife, and you can ward against siltation when you have a good cover around your wetlands. So I would therefore focus on the pothole areas of the Mississippi and Central Flyways.

I would select the wintering areas as my second choice because for too long our main area of concern has been the pothole region or the production areas. And we have realized that these wintering areas need to be conserved. We therefore have to look at the marshlands of the Gulf Coast, and then the northern edges of Oklahoma, Mississippi, Tennessee, Arkansas, and Missouri. The 404 regulatory program is very important in those areas.

We have to look at both of these areas in every flyway. Perhaps Congress should determine these priorities and provide instructions stipulating what we are going to do about agricultural loss of wetlands? What does the loss of wetlands represent to the United States, not just for waterfowl? What are we going to do to more carefully consider the 404 activities of the Corps of Engineers? If you can answer those two questions and provide direction, Mr. Con-

gressman, I will guarantee you that the habitat for waterfowl and for other wetland uses will be conserved.

Mr. OBERSTAR. Thank you very much. We'll proceed as we already have, and we appreciate your testimony last week on the 404, and on targeting of funding. You've given us some good ideas. Thank you, Mr. Chairman.

Mr. CLEMENT. Mr. Carper, the gentleman from Delaware, do you have any questions?

Mr. CARPER. I have no questions for this panel. We appreciate your being here. And to our witness from Louisiana, the secretary, Madam Secretary, please give our very best, warmest regards to our former colleague, Buddy Roemer.

Mr. CLEMENT. Thank you very much.

Now we'll proceed with the second panel. If you'll come forward at this time.

We've got a vote and we're going to have to go over. What I'd like to do, if you can when we get back, is to incorporate your statements into the record as read, and for you to summarize your statement, but we'll discuss that when we come back.

We stand in recess.

[Recess.]

Mr. CLEMENT. The hearing is in session.

Your prepared statements will be inserted immediately following your oral presentations. Mr. David F. Zentner, but I don't believe he's here. I believe his plane has been delayed.

Mr. Mike Berger, director of government relations, Ducks Unlimited.

STATEMENT OF MICHAEL E. BERGER, DIRECTOR OF GOVERNMENT RELATIONS, DUCKS UNLIMITED, INC.

Mr. BERGER. Thank you, Mr. Chairman. In the interest of time, I will summarize and try to be as brief as possible.

Mr. CLEMENT. Your testimony will be accepted into the record as read, without objection.

Mr. BERGER. Thank you.

Let me focus first on the drought situation and its role. Because of the media coverage that focused on the drought situation in the United States, this year's drought seems a critical and unfortunate phenomenon. But the sad reality is that similarly severe drought conditions have been commonplace throughout the major prairie breeding areas of Canada for the past decade. To put this into perspective, of the 5 driest years in Canadian prairies since 1961, three occurred during the 1980's. And since surveys began in the United States in 1974, the annual pond count has totaled over 1 million ponds except in 4 years, three of those occurring in the 1980's.

In the absence of this critical wetland and the associated upland nesting cover, duck reproduction suffers and waterfowl populations have declined as a result. One of the most important things that can be done right now by this committee, by the Congress, by the administration, by conservation organizations, or other individuals is to support the implementation of the North American Waterfowl Management Plan.

We've heard this plan mentioned earlier today. It's not been discussed in a great deal of detail. But suffice it to say that it is a plan for protecting and enhancing 5.5 million acres of critical lands throughout the United States and Canada. Mexico has signed a triparthied agreement with the United States and Canada. Mexico is not a signatory to the plan as such, but is fully supportive of its goals. There have been eight joint venture committees formed to implement the plan, and they are working well.

Congress is yet to be made a full partner in the implementation of this plan, and the funding for this plan is beyond the ability of the private sector and the State sector alone. Significant funding from the Federal Government must be forthcoming. We've heard it said over and over here today that habitat is the ultimate key. Regulations and enforcement can be valuable in the short term, but we must focus on habitat, wetlands, upland nesting cover. And that is what the North American Plan addresses itself to. Ducks Unlimited is fully committed to that plan and is taking actions to implement it.

I'll suffice it with that for the time being.

Thank you.

[The prepared statement of Mr. Berger can be found at the end of the hearing.]

Mr. CLEMENT. Thank you, Mr. Berger. Thank you for being brief, as well.

Mr. Gordon Robertson, legislative counsel, International Association of Fish and Wildlife Agencies.

STATEMENT OF GORDON C. ROBERTSON, LEGISLATIVE COUNSEL, INTERNATIONAL ASSOCIATION OF FISH AND WILDLIFE AGENCIES

Mr. ROBERTSON. Thank you, Mr. Chairman. I ask that my full testimony be entered in the record, and I will summarize the five major points.

Mr. CLEMENT. Your testimony will be accepted into the record as if read, without objection.

Mr. ROBERTSON. The statement I will make will address not just the Mississippi Flyway, but waterfowl problems continentwide.

The first point was mentioned earlier, and that's the Refuge Revenue Sharing Act. This is the Federal Government's commitment to local governments for foregone taxes, where the Federal Government has purchased wetlands. There's a $7 million annual shortfall to that commitment, and has been mentioned earlier, this is a real impediment to wetlands acquisition by the U.S. Fish and Wildlife Service. It's especially serious in the northcentral portion of this country. This subcommittee is in a position to recommend, through the appropriations committee, that the Refuge Revenue Sharing Act be fully funded so that acquisitions can move along in the northcentral areas.

The second point is the National Wildlife Refuge System. This country operates the world's largest and most envied wildlife refuge system in the world—453 refuges, 340 some of which are dedicated solely to migratory waterfowl. The basis for the creation of these refuges was for the perpetuation and management of mi-

gratory waterfowl. Unfortunately, the system's physical facilities are in desperate need of repair. I'm not talking about visitor's facilities, but the actual heart of the refuges, the dikes, levees, water control structures, the things that create and maintain the critical habitats needed for a refuge's seasonal operations. I'm told that there's a backlog and need of approximately $450 million to bring the refuge system up to par. Refuges are located in all flyways. They, in many cases, are critical overwintering, or critical stopover areas.

The third area is the U.S. Fish and Wildlife Service's Division of Ecological Services. This division plays a very important and sometimes overlooked role. They review over 11,500 section 404 permits each year. Approximately two-thirds of those permits are passed over due to inadequate staffing. At this point it's estimated that 50 additional full-time equivalents or positions and another $1.5 million are needed to improve the Services' important role in review of these permits which are designed to prevent wetlands destruction. We recommend the subcommittee urge adequate appropriations for this important review role of the Service to protect habitat.

Canada, Mexico and the United States, as has been mentioned earlier, are partners in a North American Waterfowl Management Plan. It is the key factor for maintaining habitat for migratory birds in North America. It's an ambitious plan. It's an expensive plan, $1.5 billion, but it's one that's caught the public's imagination and has much momentum at this point. During the last 2 years we've worked hard and gained $16 million for funding through the appropriations process. We would urge the subcommittee to recommend in its views and estimates to the appropriations committee a $25 million acquisition program for the plan in fiscal year 1990.

Last, as has been discussed, are the law enforcement problems for illegal harvest of waterfowl. We're concerned, just as many folks have spoken. However, we do not believe it is appropriate for Congress to redirect the Service's law enforcement activities. Law enforcement is a dynamic area, and the agency, provided with adequate equipment and manpower, and working in cooperation with the States, has the expertise to apply activities when and where needed.

The majority of our testimony, as you will see, is directed toward the critical need for waterfowl, that is habitat. As has been stated, 500,000 acres a year of wetlands are lost. There are signs of success: The North American Waterfowl Management Plan, and I think one that hasn't been mentioned here, and that's the very successful efforts of two Fish and Wildlife Service regions, in working through the farm bill, in an effort that has brought over 7,000 wetland acres to restoration and obtained easements for over 11,500 other acres. This has all been through the 1985 Farm Bill. We think it's a success and sound for the future.

It is true that 1988 will offer one of the lowest fall flights of waterfowl, but we cannot blame this on illegal activities. The decline, however, is ultimately and directly related to quality of available habitats, quantity of habitats, and dispersion of habitats. If we wish to restore and maintain migratory waterfowl the primary focus is, as I said earlier, habitat.

I'd be glad to take any questions.

[The prepared statement of Mr. Robertson can be found at the end of the hearing.]

Mr. CLEMENT. Thank you, Mr. Robertson.

Our next speaker, Mr. Bob Buckler, executive director, Fish and Wildlife Alliance, St. Paul, MN.

Mr. Buckler.

STATEMENT OF BOB BUCKLER, EXECUTIVE DIRECTOR, FISH AND WILDLIFE ALLIANCE, ST. PAUL, MN

Mr. BUCKLER. Thank you, Mr. Chairman, for the opportunity to be here. I will summarize my remarks and would ask that my entire statement be included in the record.

Mr. CLEMENT. Your statement will be accepted into the record as if read, without objection.

Mr. BUCKLER. Thank you.

Accompanying me today, Mr. Chairman, are Mr. Don Helmeke, a leader in the Minnesota Waterfowl Association, and Mr. Alan "Ace" Callum, a Louisiana hunting guide. Both of these gentlemen are very knowledgeable and concerned about the issue before the committee, and would also be available for questions at your pleasure.

Thank you for the opportunity to present the views of ther Fish and Wildlife Alliance on the continuing decline of North America's duck population. The Alliance is Minnesota's largest association of hunters and anglers. Our association represents virtually every statewide wildlife and fisheries organization, many regional and local outdoors clubs, and individual members.

The subject before the Subcommittee today is critically important. It goes to the heart of this nation's continuing effort to conserve our valued natural resources, specifically waterfowl, which I think we all agree is a treasure that must be saved.

Unfortunately, in the past four decades, North America's ducks have declined by about 60 percent, from an estimated fall flight in the 1940's of 150 million, to the approximately 66 million that are expected to migrate this fall.

Causes are many for the decline. Lost habitat on United States and Canadian breeding grounds has played a key role. Wetlands have been drained. Cropland has expanded into extremely marginal farming areas. And, of course, the continuing drought that has parched much of the continent has magnified the effects of these dramatic land-use changes.

There is a serious problem with illegal harvest in the wintering areas and elsewhere throughout the nation. Another complicating factor is the history of biologically questionable gimmicks including ill-advised special seasons and harvest incentives.

Other factors contributing to the duck decline include lost habitat on U.S. wintering grounds. Louisiana's vast coastal marshes—representing some 40 percent of all such wetlands in the United States—are fast eroding, as an example, falling prey to saltwater intrusion, subsidence and other maladies resulting from a reduction in freshwater flowing into the marshes from the Mississippi,

and from the many channels carved into the marshes by companies searching for oil and gas.

In California's Central Valley—home each winter to millions of the continent's pintails and other waterfowl—a similar loss of wintering habitat is occurring. Despite private sector efforts and Government programs including acquisition, Water Bank, Swampbuster and section 404, wetland loss continues at the alarming rate of nearly 1,400 acres per day. Those of us concerned with America's waterfowl resources appreciate recent Congressional hearings investigating implementation of section 404. This important Federal mandate must be carried out according to the letter and spirit of the law.

The survival of waterfowl is imperiled by increased use of pesticides and other chemicals, a practice that already is contaminating groundwater in many parts of the nation, threatening not only the health of ducks, but yours and mine. Members of the committee, if we were only talking about ducks today, we perhaps could take this subject somewhat more lightly than we do. But in truth, the decline in ducks is but an indicator of what is happening to our environment as a whole, and what will happen to all of us if we don't soon correct what is wrong.

Through the habitat programs of organizations such as the Minnesota Waterfowl Association and Ducks Unlimited, and support for the efforts of state and federal resource managers, ethical sportsmen and women are working to halt the devastating loss of wetlands.

We are counting on Congress to take every measure to ensure that wetlands are preserved and restored. America needs to implement a national wetlands policy so that there will be no net loss of wetlands. State and Federal farm programs must include provisions that benefit wildlife and prevent soil erosion. Restrictions on contaminants must be put in place—and enforced.

But actions such as these will have little or no beneficial effect for ducks unless their breeding population—already critically low—is protected and, ultimately, restored. Laws that protect ducks from poachers must be strictly enforced. Just as important, we must have the commitment and the resources to ensure that these laws are enforced.

The issue is particularly important where ducks congregate. Louisiana, for example, winters about one-quarter of all North American ducks. Yet Federal enforcement officials there have traditionally labored with too few people, too little equipment—in general, too few resources to do the job.

Members of the committee ask yourselves: If seven of you were charged with patrolling a marsh that extended up to 60 miles wide by 250 miles long, how well could you do your job?

The answer, of course, is not very well.

And, in the case of Federal wildlife agents assigned to Louisiana, it is not for lack of effort. They are some of the Service's best and hardest working law enforcers.

Fortunately, they had, and will continue to have, the support of Director Dunkle, whom we all agree is a friend of ducks, and of all wildlife. We applaud his courage in managing the harvest with appropriate restraint. But the truth is, the enforcement job cannot be

done with the resources presently allocated. Many improvements have been made in Louisiana since the problem of illegal duck harvest there came to light. More are promised by the Fish and Wildlife Service, and by new Louisiana Governor, Buddy Roemer.

But poaching of ducks and other wildlife will continue there—as it will elsewhere in the nation—unless resources are allocated to ensure that this Nation's wildlife laws are enforced. Clamping down on the illegal slaughter of ducks must become a top priority, and Director Dunkle is correct to place flagrant and damaging to the resource. Congress should take particular care to ensure that the Fish and Wildlife Service is properly equipped to carry out this critically important objective.

Duck poaching is probably more prevalent in Louisiana than it is elsewhere. But this is largely because there is more opportunity there. And duck poaching is just that, a crime of opportunity.

The St. Paul Pioneer Press Dispatch has devoted numerous columns and articles to the current waterfowl situation and disclosure of large scale poaching. These articles, written by Dennis Anderson, have had a tremendous effect on public awareness of this issue as well as the need for strong government action. I submit them as part of my testimony for the official record of this hearing.

Mr. OBERSTAR [acting chair]. Thank you very much, Mr. Buckler.

Mr. Zentner, speaking on behalf of the Izaak Walton League.

STATEMENT OF DAVID F. ZENTNER, MEMBER, BOARD OF DIRECTORS, IZAAK WALTON LEAGUE OF AMERICA

Mr. ZENTNER. Mr. Chairman, members of the committee, you have my written statement previously submitted on behalf of the Izaak Walton League. I'd like to take just a few minutes this afternoon to make some further observations for the record.

Mr. OBERSTAR. That statement will be included in full in the record. I think it was a previous unanimous consent request.

The Chair would like to say, I appreciate the trouble you went through to be here today. I've been in that situation myself many times.

Mr. ZENTNER. Thank you, Mr. Chairman.

Mr. OBERSTAR. Fog, missed connections, it's a long trip under the best of circumstances. It's an arduous one under the circumstances you made it.

Mr. ZENTNER. This is reminiscent of a mallard trying to leave Saskatchewan and make it to Louisiana and back to nest in the spring. Not quite as bad.

I am here, however, because I do love ducks. I am also here as a hunter of some 40 years. I'm here because of my love for wetlands, and because we are at yet another crossroads in America waterfowl conservation.

I'll very briefly address the subject by talking about four aspects of the various issues. I think they can be keyed by using four words. One is seriousness, one is complexity, the third is needs, and the fourth is cooperation.

How serious do I think the situation for ducks in the Mississippi Flyway is? I believe it's far more critical than ever before. This spring in Saskatchewan 1 million wetlands were dry and yet there

were still wetlands with water that were not occupied by breeding pairs of ducks. This illustrates to me that we've gone beyond compensatory mortality with our harvest, and may likely be invading our breeding stock with additive mortality. This is far more serious than the 1930's due to the continual destruction of wetlands, increased hunter numbers, increased population and environmental impact.

My own State of Minnesota is listed on just about any guide that the Fish and Wildlife Service puts out as one of the four primary waterfowl producing States in the United States, in terms of breeding production. In the 130 years of our statehood, we've destroyed 72 percent of our wetlands. In the south and southwest, which are the most critical wetlands area, the number is 99 percent. It's already been stated several times today, that we lose an excess of a half a million acres annually. Relatively high harvest rates remain in spite of a declining duck population. We have a tremendous poaching problem nationwide, and our States and Federal agents are too few and ill-equipped.

Let me talk about the complexity, Mr. Chairman. Some say habitat losses are critical and must be stopped if we are to succeed, and they are correct. Some say that harvest has been down played and deeply effects ducks at current population levels while under the seige of this drought, and they are correct. Some say that illegal activities by many hunters are contributing to the destruction of the resource, and they are correct. Some say that the vast majority of hunters do not have the field skills necessary to do what we've tried to do with complex regulations in the last two decades, and they are correct. This year's regulations, Mr. Chairman, and committee members, are a move in the right direction. Some say that acid rain, chemical pollution and increased predation are significant agents working against ducks, and they are correct.

Let's talk about needs. This subcommittee needs to support in our Congress, swampbuster, sodbuster, and continue to encourage our agencies to administer these measures fairly and firmly. This subcommittee, through our Congress, needs to add to our understaffed Federal agents, both in numbers and in equipment. It is an old story. Responsibilities are much greater than they were 20 years ago. Capabilities are smaller than they were 20 years ago. This Congress needs to commit enough money from general revenues to give realistic hope of achieving funding of the $1.5 billion objective for the North American Waterfowl Management Plan. This Congress needs to encourage and support, nationwide, efforts to educate our hunters. They—hunters—must want to be ethical. There's no number of wardens that can stop illegal activities if the sportsmen do not want to be ethical. They must be capable of protecting their own resource. They must have those skills.

Cooperation. Mr. Chairman, and committee members, this is not an issue of the north versus the south in terms of ethics. This is an issue of illegal kill that is a national problem, and a national embarrassment. This is not an issue of the wildlife manager contending in favor of habitat versus the enforcement agent contending it's harvest. It's clearly a matter of addressing both. And it's not a matter of States versus Feds, or provinces versus their Federal Government. It's a matter of all of us in the private conservation/

environmental movement. All of us, like a Pogo cartoon, you can't look anywhere else. We can't afford turf squabbles, we all live in the same house.

In conclusion, this is serious. This is the worst of times for ducks. This is complex, multifaceted. There is no simple answer. You must commit. Without an able ally in the Congress, the Fish and Wildlife Service, the State agencies, and all of us in the private sector will be unable to succeed. We all need to cooperate, Louisiana, Minnesota, Federal and State agencies, duck hunters and Congress, and private conservation organizations, one with the other.

Finally, this is not a hunting versus an anti-hunting issue, Mr. Chairman. Wetlands, waterfowl and wildlife enrich millions of Americans, all of us. Therefore, deserve the general revenue funding I requested earlier. Thank you for the opportunity to appear. I'd be pleased to answer any questions, Mr. Chairman.

[The prepared statement of Mr. Zentner can be found at the end of the hearing.]

Mr. OBERSTAR. Thank you for that very thoughtful, and very well balanced perceptive analysis of the situation.

The Chair recognizes the gentlemen from Louisiana—oh, I'm sorry, there is another gentlemen from Louisiana, a witness who has not yet testified. My apologies.

Mr. Parnell.

STATEMENT OF FRED PARNELL, THE SPORTS SHOP, BATON ROUGE, LA

Mr. PARNELL. My name is Fred Parnell. I'm a long time duck hunter. I've been in the fishing and hunting business for 44 years. I've been hunting ducks for 52 years, and I think I'm pretty well acquainted with the situation in Louisiana. I'm not a biologist or a technician like some of you gentlemen, and I've enjoyed hearing all of you. I'm a concerned Louisiana hunter.

I've cut this short, so I'm kind of skipping around because you've been burdened with too much already.

Now, I've hunted more places in Louisiana, I really sincerely believe, than any other duck hunter, I wouldn't trade my opportunities or my results with any hunters, any other hunters that I've known of. Now, I'm in very close contact year around with all types of duck hunters across North America, because of business and pleasure. What you've heard about the gross overkill violations in Louisiana, I think are isolated and infrequent. It happens, and I'm ashamed of it, and I'm sorry for it. These examples of behavior in the field do not represent the average hunter in Louisiana.

Now, the Fish and Wildlife agents in Louisiana are very good, and very dedicated officers. They always do their homework and concentrate on serious problem areas with good results. These men, along with State agents, have checked me many times and in many different places in Louisiana. In recent years, 5 or so, I think most of the responsible hunters of Louisiana have recognized that ducks have become less plentiful, and are in trouble due to the drought and the loss of habitat, and everything that you all have said. We also realize that if violations occur at unacceptable levels, that we are hurting ourselves and threatening the opportunity of future

generations of hunters. I believe I speak for most of the majority of Louisiana. And, of course, we don't condone this, and we don't want any part of it.

Louisiana, by the way, has always contributed very heavily to Ducks Unlimited. Now, we're a smaller population, of course, but we have more life sponsors—now, if ya'll don't know what that is, the Ducks Unlimited man can tell you—and I'm proud of this. And we certainly hope they continue, and support their efforts on wetlands conservation efforts on behalf of the ducks.

Most of the hunters, and elsewhere across the country, appreciate these agents, both State and Federal. Now, I know law enforcement and ethical behavior are not only a Louisiana problem, but a North American problem. I have hunted in many States and throughout Canada, James Bay, Hudson Bay, 200 miles north of Winnipeg and many times in Saskatchewan. I've hunted very extensively in Mexico, and on the Yucatan Peninsula for 30 years. Let me say something about that. Ya'll don't have to worry about the ducks down there. I talked to my friend down there, he is, incidentally, the president of Ducks Unlimited in Mereda, yesterday and he said that the hurricane—I was checking on him after the hurricane—he said the roads are broken. Well, that's a trail is all it is. It's just a dusty path with a sand trail along the gulf, so that's going to help ducks for a long time this year down there. But those people are working hard for ducks, okay.

I think it was socially accepted and a status symbol, and a bragging point for hunters to disregard bag limits. My old friend, Perry White, now retired as a Federal game agent in Louisiana, told Congress years ago, 20 years ago, that in working all over the United States, he believed that 80 percent would violate if they thought they could get away with it.

My firm belief is that pointing fingers and talking about each other, about the current situation is not going to help. That what we need to do is work all together and for the ducks. We need improved education and awareness among current hunters, and especially among young future hunters. Most important, we need to work much harder together to save the habitat and wetlands for waterfowl. I believe that this is the real crises at hand. Supporting wetlands conservation programs such as Ducks Unlimited and North American Wildlife Management Plan, we just hope they will continue. We want to help them any way we can. And we certainly hope they'll be accelerated in the future.

It is also important to have reasonable and enforceable hunting regulations so that landowners will not be discouraged to improve their lands. I have a big paragraph, and I'm just going to say, I fished this Labor Day weekend on a friend of mine's place below Lake Charles. He spent $560,000 improving wetlands down there in 3 years. I wonder if he'd done that with these present regulations, short season and all. He's trying to help the ducks.

OK, let's see here.

Gentlemen, it should be agreed there is room for improvement in hunting ethics throughout North America. Yes, it used to be socially accepted everywhere to disregard established regulations. I strongly believe attitudes have changed and it is no longer socially accepted. My hope is that the law enforcement issue, while very

important, will not overshadow the sad fact that our continent's wetlands are being destroyed. I'm delighted to hear everybody say that. This hearing can help maintain cooperative efforts to resolve the major problems facing the ducks today and the opportunity to enjoy the sport of legal hunting in the future.

Thank you, gentlemen—oh, let me say one other thing. Somebody was talking about Mexico. I'm not an authority, but I do know a lot about it. I think that gentleman's already left?

[The prepared statement of Mr. Parnell can be found at the end of the hearing.]

Mr. CLEMENT [acting chair]. No, I did, as well as Congressman Don Young from Alaska.

Mr. PARNELL. Do you realize how many mallards are killed in Mexico? Have you ever had that point brought to you?

Mr. CLEMENT. How many?

Mr. PARNELL. Yes, anybody.

Mr. CLEMENT. Tell us.

Mr. PARNELL. Do you know of how many mallards are killed in Mexico? None. None. That's the point I'm making.

Mr. CLEMENT. Pintails.

Mr. PARNELL. There are none. In 30 years in Yucatan, I've never seen one. And there's very few across the Rio Grande River. Now, I don't know what they do below Arizona.

Mr. CLEMENT. Well, I know white dove are killed.

Mr. PARNELL. White-winged doves. Oh, oh, yes, they're a menace down there. But there's no mallards. I wanted to make that point. And the road is broken so you don't have to worry about Yucatan.

Mr. CLEMENT. I thought one southerner could understand another southerner. [Laughter.]

I'm becoming very concerned now.

The gentleman from Louisiana.

Mr. TAUZIN. Gentlemen, you heard the prior panel discussion about the 404 permit program, and I wonder if any of you in your associations, or your groups have ever concentrated on that question. And if not, why not? If you've concentrated on it, do you see, as I have tried to point out, some real strangeness in a program that will protect wetlands under one circumstance but not protect it under the circumstance where 80 percent of it's being destroyed, which is draining it for agriculture purposes? Anyone want to handle that? Mr. Zentner?

Mr. ZENTNER. I'm sorry, I was talking about plane connections back to Duluth.

Mr. TAUZIN. You looked interested, I thought you wanted to answer.

Anybody? Mr. Robertson.

Mr. ROBERTSON. The International Association has followed the 404 program very closely. We're somewhat discouraged by the way it progresses. For many States it is the only wetlands protection act. We are not pleased that agriculture is exempt. I think you can sum it up by saying that ag has a very strong lobby, and Congress determined that ag would not be a part of that section.

Mr. TAUZIN. Well, you know, it seems like the great bulk of the damage has already been done when you look at 90 percent and 99 and 98 and 80 percent figures. It seems like maybe now we might

have a chance to get an agreement that we're not going to destroy the rest of it. Perhaps now is the time to, you know, maybe make an effort in it, and if we collectively do it we might have a shot.

It just seems to me that I just want to maybe point out that while we're talking about an effective legislative agenda for next year, while we can concentrate on all the elements we discussed here today, and maybe that's a good one to be working on, maybe preventing the loss of what remains in the wetlands areas, and potholes.

And while we're talking about that, Mr. Parnell, EPA recently published a document detailing the coastal and wetlands, particularly coastal wetlands losses of the Nation, attributable to two causes. One to the ocean rise, which they estimate in the next 42 years to be about 4½ feet. By the year 2030, under that scenario the coastline of Louisiana will be at Houma, LA. And except for the levied communities of Bayou LaFourche and the levied communities down the river in Plaquemine, the coastline will be a line that you draw from New Orleans to Houma. And all the rest will be lost forever.

They estimate that the current 50 or 60 mile per year erosion rate will double very quickly in the early 1990's. That means we'll be looking at 70,000 to 80,000 acres of marshlands every year destroyed. And at those rates, we will lose a large portion of what is the wintering grounds for a large number of the ducks and wildlife that use the Mississippi Flyway.

If those figures aren't bad enough, a separate analysis, done of ordinary erosion rates are occasioned by the sinking of the marsh, since the rivers no longer replenish it every year, indicate a similar disastrous loss of marshlands. You combine the two which EPA has not done yet. They have not yet combined ocean rise with marshlands degradation figures. If they ever collate them, we're looking at incredible losses of incalculably valuable estuaries and marshlands in Louisiana that produce not only wintering habitat for the waterfowl we're discussing today, but the estuaries that produce the seafood that provides 29 percent of this Nation's harvest.

You're a hunter. You're concerned as a hunter. You just told me something else. You're a fisherman, too.

Mr. PARNELL. A good one.

Mr. TAUZIN. And a good one.

And you've watched the legislature cope with dwindling speckled trout, dwindling red fish counts.

Mr. PARNELL. It hurt my business, too.

Mr. TAUZIN. And it hurt your business, too. There are less sportsmen out there now because of the new restriction. You're beginning to see, as I'm beginning to see, I think, a general awareness in our population, that if we're going to be sportsmen paradise of the future, every single hunter and fishermen has to become a conservationist. You said you noticed that. I want you to amplify that.

Is that beginning to really sink in to the populous of Louisiana?

Mr. PARNELL. Yes, definitely. I've hunted a tremendous area of Louisiana. Not just in one place, from Hackberry to—I never have hunted in this real troubled area that these Minnesota boys are talking about. I'm glad I haven't. But I've hunted in most other

parts of Louisiana, and it was socially accepted and it is not socially accepted. The peers now, and I like to think I'm one of them, respected and——

Mr. TAUZIN. Do you belong to a hunting club?

Mr. PARNELL. Seven.

Mr. TAUZIN. Seven.

Most of my constituents now belong to hunting clubs.

Mr. PARNELL. Well, mine are small groups, and not big, big, big hunting clubs. I'm not a social hunter, or such as that. I love to do it all myself.

Mr. TAUZIN. Gotcha.

As I understand, the creation and the evolution of hunting clubs in Louisiana, the clubs themselves become conservation groups.

Mr. PARNELL. Definitely, definitely.

Mr. TAUZIN. Are they not, in fact, pressuring law enforcement agencies for more and more enforcement within the laws of our State and Nation?

Mr. PARNELL. Definitely. John Donohue with Vermilion Corp., is a very close friend of mine, he controls all that Vermilion land. I hunt with him every year at Pecan Island area. I hunt with him opening day every year, and they're very strict. All of his people are very strict.

Mr. TAUZIN. So we see two things happening in our State, that I think we've seen happening in other States as well. We see too few, too little resources dedicated to what more and more hunters and fishermen are asking for, better enforcement.

Mr. PARNELL. Oh, yes.

Mr. TAUZIN. We see laws that do not encourage, in fact, discourage property from a remaining wetlands and encourage it to be converted into other uses, particularly agriculture. And we see a gradual erosion of the base upon which our waterfowl and our fish populations depend. And at the same time, we're beginning to see what was missing for so long, not only in Louisiana, but I think across America, and that is an awareness of the connection between all those things, and among all those things.

And I guess I want to thank you for coming to give us your analysis and if you want to amplify on it, I'd be glad to let you.

Mr. PARNELL. Thank you so much.

Let me mention one other thing about these potholes. I hunted in Denmark 3 years ago. The exact same latitude as Canada, and they have the most fabulous setup there in the world. They do everything in the world to help those potholes and help those ducks. Do away with predators, and consequently they have——

Mr. TAUZIN. One final thought. I just asked my friend, Jim, this question, and he gave me his answer. His answer was, we don't.

I asked him, do we have any Federal tax laws that are written specifically to encourage properly owners to do what your friend did near Lake Charles, to invest money in the preservation of wetlands in the enhancement and creation of wetlands, specifically for the purposes of enhancing our conservation effort, and his answer was, nope, we don't.

Mr. PARNELL. Say, what?

Mr. TAUZIN. And his answer was, we don't. I suppose I'm going to ask you an obvious question. Don't you think it's time we do

have laws that do that?

Mr. PARNELL. Oh, Lord, yes. This place—I struck out about half my speech, it was too long.

Mr. TAUZIN. I know.

Mr. PARNELL. But this place is wall-to-wall blue-winged teals right now. There was just tremendous quantity over there.

Mr. TAUZIN. Because he invested in that property?

Mr. PARNELL. Right, right. The Conservation Department said that there were 250,000 ducks there 10 years. The marsh deteriorated, then he restored it, and now it's just wall-to-wall ducks.

Mr. TAUZIN. For the record, too, Mr. Chairman, I'd like to point out, and Virginia, I think, she's still here from the first panel to verify it, we put aside about 5 million acres in Louisiana that have been acquired by the State and placed aside in some sort of protective reserve, or management areas in our State. Even that, 5 million acres, most of us concede in Louisiana is not nearly enough. And we still, I believe, are looking for ways and means of acquiring more, and specifically encouraging private landowners, many who are out-of-State, by the way, who own the marsh of our State, and are absentee owners, to come back and to invest in enhancement and protection of those wetlands areas. Maybe it's time that all of us who are concerned about this problem look seriously at a legislative effort to get some decent tax laws on the books that would encourage people to keep wetlands wet, rather than encouraging them, as we do now, to turn them into something else.

Mr. Zentner.

Mr. ZENTNER. Mr. Chairman, Congressman, thank you. I would like to make some observations that might be useful. As you commented earlier that since so much of our wetlands have been destroyed, out of this crises might come the opportunity for some restoration activity. And what I was struck by in my home State, those of you that aren't familiar with Minnesota, if you think of the outline of our State, pretend that your standing at the southern boundary. And on your left is a river called the Minnesota River which comes from the Minnesota/South Dakota border, and on July 27, 1988, in Montevideo, MN, it was at 14.5 CFS, which is 4 percent of its normal July/August flow. The Mississippi River arises in the northern tip of the State and kind of comes through the central part of the State much of the watershed largely protected, some of it agriculture and developed. At the Coon Rapids Dam on July 30, it was at some 800 CFS, which is 20 percent of the normal 4,200 July/August flow. Coming down from the right, out of Wisconsin, the least developed watershed is the Saint Croix. And the Saint Croix at Saint Croix Falls on July 28 or 30, was at about 700 or 800 CFS, about 33 percent of a normal 2,200 CFS.

The spinoffs, the impacts, the cost to society where we have the 98-percent destruction of wetlands, is pretty obvious. And if you'd trace the climate and the rainfall during the same period of time the differences are not associated with differences in the hydrologic cycle. And the one thing—of course, I came late, and maybe this has been mentioned, but I hope that we don't forget that whenever we talk about habitat, that we don't focus on the tremendous jackpot we're in right now because of the destruction of the upland con-

nection. The upland connection with breeding species like mallards, blue-winged teal—the gentleman from Louisiana just mentioned—pintail ducks will nest a half mile, a mile away from a water area. The drought crises has caused a crises response by farmers, which has been increased encroachment and destruction of those upland nesting areas. Those that are left make it so easy for exploitation by predators, that it is just absolutely unbelievable. In fact, I am told by waterfowl experts that we need 15 percent nesting success to have a recruitment that will sustain a population. In many areas, broad areas of our habitat were below 15 percent nesting success. In places where some research has been done, and some structures have been created as barriers to predators, that pops back up in the 60 percent ratio.

So we have to again, I tried to emphasize the complexity of the issues, and there's more to it than our traditional concept of a waterfowl artist's rendition of a beautiful fall scene over water.

Thank you.

Mr. TAUZIN. Well, you've done a beautiful job, I think, of elaborating on yet another complexity of this issue, and that's the interrelationship between lands adjacent to wetlands and upland support areas. And you've done something else that I want to compliment you on. And that is to call to our attention the need for those of us in the south to work in a cooperative effort with those of you from the north. Because the flyways don't go east and west, they come north and south, we have a particular need to work together here, and for that sentiment I want to thank you. I share it mightily.

Mr. ZENTNER. Thank you.

Mr. CLEMENT. The Chair recognizes the gentleman from Minnesota.

Mr. OBERSTAR. Thank you, Mr. Chairman.

I want to thank the panel for their very thoughtful presentation and for the time and effort that it took to put together their important contributions to broader knowledge and understanding of this complex issue. It's not one that we're going to solve overnight. And it's not one that's going to be solved by one action, but rather by a combination of actions.

Let us go to perhaps the most visible factor from the standpoint of the news media this year—the poaching and the illegal hunting. I think all but Mr. Zentner heard the testimony from the Louisiana Department of Fish and Wildlife, about the numerous reform steps that have been taken—actions initiated under the leadership of Governor Roemer—by Secretary Van Sickle to improve the enforcement program in that State. I'd like to have the panel's reaction to those actions.

Mr. Buckler.

Mr. BUCKLER. As I mentioned in our statement, Minnesota Sportsmen applaud the efforts of the Roemer administration and Ms. Van Sickle. We couldn't be more gratified than we are, and I couldn't personally, and speaking for my organization, be more pleased than to have heard her testimony today.

Mr. OBERSTAR. Mr. Berger.

Mr. BERGER. We're very pleased, too. We believe that people who violate wildlife laws are criminals, and that they ought to be pun-

ished for their crimes. I would hope that any increased efforts, not only in Louisiana, and I think Secretary Van Sickle addressed this, focus not only on the apprehension of the criminals, but also on the education of the general population and the hunting population, so that we can reduce violations in the future. I think that's a very strong emphasis. Ducks Unlimited does this with our Green Wing program. I think the emphasis must be on education if we're to be successful and reduce this kind of problem in the future.

Mr. OBERSTAR. Mr. Robertson.

Mr. ROBERTSON. Well, we certainly support Louisiana's effort, and as Secretary Van Sickle mentioned, the Association's Law Enforcement Committee looks forward with training programs of new techniques, to ways law enforcement can be a more efficient operation. I might add, that not only Louisiana, but many other States are beefing up their law enforcement efforts. It's something that takes a lot of money, a lot of manpower, a lot of men per county, and it is quite expensive. But it is occurring.

Mr. OBERSTAR. Thank you.

Mr. Zentner, how would you characterize Minnesota's enforcement program as compared to that spelled out by Ms. Van Sickle earlier? She indicated that Louisiana intends to have 231 agents in the field; the ticket tracking program has been revamped; they have undertaken law enforcement reform that reaches into the way in which law enforcement officers are engaged, they're no longer required to come from the area that they patrol; training will be upgraded; and they have integrated agents and U.S. magistrates and attorneys to facilitate better mutual understanding of the responsibilities of each. How would you compare those efforts to the enforcement program in the State of Minnesota?

Mr. ZENTNER. Mr. Chairman, Congressman Oberstar, my appraisal in our State is somewhat limited. But we did have a meeting last night and discussed this very issue at our Izaak Walton chapter, in fact, in Duluth, and I think generally the training and the capability of the State people in Minnesota are excellent, the dedication is good. The integration and cooperation with the Federal agents, I think is equally good. Our biggest problem at home is familiar to the rest of the country, we're under complemented. We don't have adequate wardens to make the average hunter think that he or she has much of an opportunity of being confronted by law enforcement officials in our State, from either the Federal presence or the State presence.

Mr. OBERSTAR. Well, reports indicate, or allege, that one out of five hunters in Minnesota commits some sort of violation of hunting laws. Do you think that's an accurate number?

Mr. ZENTNER. One out of 500, Mr. Oberstar.

Mr. OBERSTAR. One out of five hunters.

Mr. ZENTNER. I would believe that that is an optimistic expression. I think that if you look at the information Dr. Jackson has provided, Dr. Jackson of the University of Wisconsin at La Crosse, I think basically operating observations, plus interviews that have very high percent of the waterfowl hunters that he confronted in Minnesota and Wisconsin, when given the opportunity he broke the law.

Mr. OBERSTAR. Now, the question I was trying to get at from testimony earlier today, before your arrival, and which I want to revisit with this panel is, what is the relative significance of illegal hunting in terms of its impact upon duck populations as compared to loss of habitat and loss of breeding and nesting grounds, whether in Canada or in the lower parts of the flyway? And also, perhaps, what is the significance of opening day hunting, when opening day starts, both in the day and in the cycle?

Mr. ZENTNER. Mr. Chairman, Congressman Oberstar, it is difficult for me, as a layperson, to be precise in balancing habitat versus illegal harvest, versus legal harvest. But I am impressed by this.

We don't know when the drought is going to end, and we cannot force the acquisition, in the near future, of substantial increments in habitat. But we do know that, for example, in Louisiana there are estimates of illegal harvest ranging from 1.2 million to four times that. The legal kill being 1.2 million. If the estimates are all wrong, and it was one-half of the legal kill, it would take a tremendous chunk of habitat to protect 625,000 breeding ducks for the spring of 1989. The significant thing to me this afternoon, about the illegal kill, it is something that we can respond to quite quickly.

As regards to the legal kill, my sentiments as a layperson, over four decades of hunting, is that we have been consistently over-harvesting on a legal basis this resource for at least two decades, and I say that because there are authoritative records, in the 1960's of habitat that was not occupied by breeding pairs. That has happened consistently in the 1970's, and even under the dreadful conditions of the 1980's, we have habitat in excess of breeding pairs. Minnesota was faced by that situation in the 1970's with respect to its resident mallard population. Minnesota took the steps, a noon opener, Mr. Oberstar, a 4 o'clock closing, understanding that mallards or any species of duck is much more vulnerable in its breeding and staging area than it is as a pioneering animal several hundred miles away. Our mallards have responded positively to that.

I also would add, your final questions regards the time of day for the opening season is directly connected to the previous words I've uttered. I think a noon opener saves a lot of birds, compared to a sunrise or a half hour before sunrise.

Mr. OBERSTAR. I must say for the record I was very disappointed with Mr. Dunkle's response. I asked about the restriction on the hunt and he didn't seem to think that we were being overly restrictive. In fact, he thought that the numbers set for the take for the current season were about right, and might turn out to be, in practice, a little bit higher. Unfortunately, time ran out on us, and I must say for the record that I was disappointed that he didn't show a greater depth of concern about that which you have just cited, literally an over-harvest that has gone on for a very long period of time.

We have another vote in progress, and I'm nearing the expiration of my time. I just want to underscore the significance of the testimony of all members of this panel about habitat itself. I will repeat, over my 14 years of service on this committee focused on the need to maintain habitat, we have tried a number of devices. Ducks Unlimited, I'm surprised that you didn't mention in your

testimony how many hundreds of thousands of acres in Canada DU has protected through its purchases, and through it's contributions to set-aside. I would suggest that you submit that information for the record, so we'll have it as a part of this testimony. I think that's a very important contribution. But, despite the private efforts of DU, the public efforts of State and Federal Governments and the provincial governments in Canada, and the efforts of private landowners, we simply have not been able to stem the tide. We're losing more wetlands than we're setting aside.

In the Garrison Diversion a few years ago, we would have lost, if we had not had mitigation legislation pushed through, in one project, more wetlands than we'd have been able to preserve in 10 years in this country through all efforts of the Federal Government. So if a tax incentive will be helpful, I'm willing to support any initiative that will help us set aside more wetlands. But that must be accompanied by tough enforcement in all of the States along the flyways.

Mr. TAUZIN. Would the gentleman yield?

Mr. OBERSTAR. I yield happily to the gentleman from Louisiana.

Mr. TAUZIN. I thank the gentleman for yielding, and I first want to compliment him on his concluding statements. I think he's absolutely correct. We've all got to do a better job.

But let me point out one thing that maybe for the record, the number of four times the legal kill, the illegal kill estimate for Louisiana has been used several times in this hearing. It was the subject of some comment of the articles in Minnesota. That was an estimate by one gentleman, Federal Agent Hall, who happens to be an excellent agent, and a man whom I respect a great deal. But it was not a number that was verified by Ms. Van Sickle, and neither by our Federal agency. It's the estimate or idea of one fellow who works every day with criminals who are violating the migratory bird laws of our State. I suppose if I worked all day long with criminals I'd at some point get so frustrated as to think that that's all there were around me, that everybody was a criminal and there wasn't a single legal hunter in our State or in the area.

But I suggest to you that it's a number, a figure, that has not been verified, and has not been associated with any scientific research. It's a guesstimate and may reflect, in fact, practices that are fast, I hope, fading out of existence, not only in our State, but in other States. I mentioned to the gentleman earlier, that I'd been to St. Michaels on the Chesapeake on the Eastern Shore. There's a museum there that details the horrible poaching practices in the Chesapeake that are now a part of history. And I suppose if we looked at those and made a current day estimate based upon what we saw there, we'd calculate even more than four times the legal kill in Maryland. But that would be unfair to that State and to it's legal hunters and those who are trying to abide by the law properly.

I point that out only because members get bantered around without a careful, scientific evaluation and as a result, unfortunately, black eyes are presented to people and to places—that's a bad phrase to use I suppose——

[Laughter.]

Mr. OBERSTAR. I don't mind.

Mr. TAUZIN. And you know, we've just got to be careful about that. The fact is, that I think all of us, as you point out in your concluding statement, have a job to do in beefing up everything we do to improve the waterfowl conditions of our Nation.

Thank you, sir.

Mr. OBERSTAR. I thank the gentleman for those comments, and let me compliment once again the State of Louisiana for the decisive action taken. I urge you to continue on the course you have begun.

Mr. Chairman, thank you for your patience throughout this afternoon.

Mr. CLEMENT. Thank you for questions, thank you for everyone that testified today, and been a part of these most important hearings.

Mr. TAUZIN. Mr. Chairman, before you adjourn?

Mr. CLEMENT. Yes.

Mr. TAUZIN. I also want to thank you. As you know, you stepped in to be an impartial chairman for our regular chairman, and I want to thank you for the fair and impartial way you've conducted this hearing, and doggone, you talk funny, but you're all right. [Laughter.]

Mr. CLEMENT. You're very kind. Well, you know, Mr. Studds said that I might be difficult to understand. That's why I've tried to talk slow so everyone would understand me.

This hearing is adjourned.

[Whereupon, at 6:19 p.m., the subcommittee was adjourned, to reconvene at the call of the Chair.]

[The following was submitted for the record:]

TESTIMONY OF THE HONORABLE JOHN D. DINGELL
BEFORE THE
SUBCOMMITTEE ON FISHERIES AND WILDLIFE CONSERVATION AND THE ENVIRONMENT
SEPTEMBER 22, 1988

HEARING ON THE DECLINE OF WATERFOWL

I am pleased to submit my comments on a subject I care deeply about. As a former Chairman of this Subcommittee and a member of the Migratory Bird Conservation Commission, I have a long running interest in the waterfowl of this Nation. I commend the Subcommittee Chairman for calling this hearing to examine the status of waterfowl and especially the reasons for declining production. I know that a major concern of the Subcommittee is illegal waterfowl hunting. This is a problem I am confident that the U.S. Fish and Wildlife Service and the state fish and wildlife agencies have the ability to control. My real concern is the more damaging effect that loss of habitat is having on this precious national resource that provides so much enjoyment to millions and is so steeped in rich tradition.

In 1934, this Nation established a program to require duck hunters to purchase a federal stamp for the privilege of hunting ducks and other waterfowl. The proceeds were earmarked to purchase habitat to assure that the waterfowl resource would continue to have the necessary habitat and those who sought waterfowl would have birds to pursue. The Duck Stamp program and the Migratory Bird Conservation Fund have been successful. They have been responsible for the protection of nearly five million acres of waterfowl habitat and continue to be the dependable mainstay for acquisition programs. In

Michigan, Duck Stamp funds have purchased 84,000 acres and made possible the establishment of two refuges. We must make sure that the Fish and Wildlife Service aggressively pursues acquisitions with these monies, as intended, and that each year's receipts are fully expended, and the refuge system continues to serve its intended purpose.

However, there are problems. Habitat continues to dwindle. The Refuge Revenue Sharing Act, for example, is the federal government's commitment to local governments that forego a stronger tax base when the Fish and Wildlife Service purchases wetlands within their jurisdiction. The Act has not been fully funded, and in important duck-producing states this has caused a serious problem. The local governments have taken a stand, and rightly so. They have resisted further wetland acquisitions and made this resistance known to the Migratory Bird Commission.

This Federal failure is a breach of faith to local communities and to the resource. It has caused an unnecessary schism among folks who normally rally behind waterfowl. This breach of faith to local governments who use the money for educational funding and other key elements is unnecessary. The Refuge Revenue Sharing Act has not been fully funded since 1980 and in FY 1989 its obligations were only half met. Mr. Chairman, this Subcommittee should work with the Interior Appropriations Subcommittee to correct this deficiency.

It is my understanding that the North American Waterfowl Management Plan is enjoying success. I am pleased that the federal government, the

populations are down this year, they will rebound. This Congress needs to show its support for waterfowl by making sure the Refuge Revenue Sharing Act, land acquisitions efforts, and responsible agencies have the proper tools and funds to do the job.

Statement of Rep. Arlan Stangeland
Before the Merchant Marine and Fisheries Committee's
Subcommittee on Fisheries and Wildlife
Conservation and the Environment

Mr. Chairman: I appreciate this opportunity to appear before your Subcommittee to express my concern over the declining North American duck population. Since the end of the World War II, duck populations have declined by 60 percent from an estimated 150 million to 62 million.

I believe this decline can be attributed to two major factors, illegal hunting and the destruction of wetlands.

I am sure we have all heard and read the stories of illegal hunting in the South. I do not think blaming certain sections of the country for this problem is very constructive. The point that should be made is this: ILLEGAL HUNTING IS A PROBLEM FOR ALL OF US AND WE MUST WORK TOGETHER TO FIND A SOLUTION.

We can start by giving our enforcement officials the necessary tools to combat the illegal hunting. With proper funding, game officials can make their presence felt in the marshes and lakes of Louisiana and Minnesota.

In addition to strong enforcement measures, hunter education programs must be undertaken. These programs can review the laws and penalties for the hunters and explain what damage overkill causes.

I would also like to point out that it is equally important that wetlands be protected and managed properly. The preservation of waterfowl habitat will take long-range planning and cooperation between the public and private sector and the United States and Canada.

We have demonstrated that cooperation can exist with Canada by co-signing the North American Waterfowl Management Plan in May of 1986. This plan provides the framework for a waterfowl conservation and management effort by describing population goals and suggesting recommendations that will resolve problems of international concern. Through plans like these, we can prepare for the future.

Waterfowl are the most prominent and economically important group of migratory birds in North America. They are highly prized by sportsmen as gamebirds and by individuals who enjoy observing them. We must all work together to preserve this treasured natural resource if we want future generations to enjoy them as we have.

Senator Dave Durenberger

U.S. Senator for Minnesota

STATEMENT BY SENATOR DAVE DURENBERGER
ON NORTH AMERICA'S DECLINING WATERFOWL POPULATION
BEFORE THE HOUSE SUBCOMMITTEE ON FISHERIES AND
WILDLIFE AND ENVIRONMENT
SEPTEMBER 22, 1988

Thank you Mr. Chairman for the opportunity to address the Subcommittee on the very important issue of North America's declining waterfowl population. This issue is of great importance to me and millions of sportsmen around the country.

It is national tragedy that within the last ten years the population of North America's waterfowl has declined and declined drastically. It is well known that this decline stems from lost habitat, as wetlands have been converted to farmland or shopping malls. The affect of lost wetlands is particularly acute due to this summer's drought in the Upper Midwest and Central Canada.

Another cause of the decline is pollution and habitat degradation. According to the National Audubon, there is a correlation between the decline of some species of dabbler ducks in the Northeast and the rise of acid rain. Further, the use of pesticides and chemicals leach into wetlands adversely affecting nesting and reproduction. What has happened at Kesterson National Wildlife Refuge is the starkest, but not only example.

Finally, we know that illegal hunting occurs, but we do not know its full extent. But what we do know, much of our knowledge stemming from a series written by Dennis Anderson in the St. Paul Pioneer-Press-Dispatch, indicates that illegal taking is a major problem that must be controlled. Because of our ignorance, I believe a complete study should be conducted by wildlife managers to determine the extent of the illegal take and methods to best control it.

Yet, I know we cannot wait for a study, ameliorating steps must be taken now. Accordingly, I commend the Izaak Walton League in its effort to promote and teach hunter ethics. In addition, the U.S. Fish and Wildlife Service is tackling the declining population head on. Reducing the legal fall hunting take is certainly a first step. As is the commitment of law enforcement resources to the Southern Mississippi Flyway wintering grounds, where the greatest illegal hunting abuse occur.

To conclude, Mr. Chairman the declining waterfowl population is very disturbing and stems from many causes. But we know these causes and are taking the appropriate steps, although these steps may not be big enough. Nonetheless, I am optimistic. Nature when given the chance bounces back and I believe North America's waterfowl will too, if we give it a chance. This hearing and the subcommittee's commitment indicates to me that waterfowl will get the chance it needs.

Again, thank you for this opportunity. I am prepared to answer any question the committee may have.

STATEMENT OF FRANK DUNKLE, DIRECTOR, U.S. FISH AND WILDLIFE SERVICE, DEPARTMENT OF THE INTERIOR, BEFORE THE SUBCOMMITTEE ON FISHERIES AND WILDLIFE CONSERVATION AND THE ENVIRONMENT, COMMITTEE ON MERCHANT MARINE AND FISHERIES, U.S. HOUSE OF REPRESENTATIVES, ON THE DECLINE IN THE WATERFOWL POPULATIONS

SEPTEMBER 22, 1988

Mr. Chairman and members of the subcommittee, thank you for the opportunity to speak to you about the current problems confronting waterfowl in North America.

Continuing widespread drought over many prime waterfowl breeding areas of Canada and the northcentral U.S., combined with low breeding populations, have severely limited the productive capacity of many populations. Over 1 million acres of wetlands in the United States and Canada disappeared during the year between our 1987 and 1988 breeding population surveys. Many more acres have been impacted by agricultural practices. U.S. Fish and Wildlife Service biologists are projecting a fall flight this year of 66 million ducks, the second lowest on record.

The Service recognizes that habitat -- both breeding and wintering habitat -- is the key to healthy, vigorous populations. Two factors have combined to severely reduce available habitats for ducks during the 1980s.

First, the impacts of widespread drought have been sustained and extensive throughout much of the prime breeding habitat of ducks. Some important breeding areas in Prairie Canada have been extremely dry since 1980. Other areas have been periodically dry,

but nearly all are dry in 1988. The 1980's have seen three of the five lowest pond counts on record in Prairie Canada. The story is not one of a single year of severe drought in 1988, but of drought intensified by several years of repeatedly poor conditions.

The effects also are felt on migration and wintering habitats. Low volumes of stream-flow have reduced freshwater and coastal marshes, and reduced levels of natural flooding will concentrate waterfowl. This is especially true for critical migration resting and wintering sites such as the Gulf Coast and Central Valley of California. Such concentrations can lead to serious disease outbreaks and greater vulnerability to hunting pressure. Moreover, there is growing evidence that poor quality fall and winter habitat can result in birds returning to their breeding grounds in poor condition the following spring.

Second, agricultural encroachment on ponds and surrounding habitats in Prairie Canada has accelerated because of the drought and has seriously reduced the capability of traditional Canadian prairie habitats to produce ducks. The rate of modification of pond basins -- reportedly as high as 67 percent in one Province during the early 1980's -- has accelerated. It is likely that several years of good climatic conditions will be required before many drought areas can recover and revegetate sufficiently to produce ducks again.

The net result of these interacting factors is a sustained decline in duck populations. For example, the mallard breeding population in surveyed areas fell from 10 million in 1970, to 8 million in 1980, and to 6.5 million in 1988. Pintail breeding stocks followed a similar pattern, decreasing from 7 million, to 5 million, and to 2.5 million over the same time intervals. In 1985 the fall flight index for ducks was at 62 million -- the lowest on record. In 1986 and 1987 the index increased to 73 and 74 million, respectively, but this year we are predicting a flight index of only 66 million.

Because of these sobering figures, achievement of the goals of the North American Waterfowl Management Plan is imperative. This Plan estimates that 6 million additional acres of Canadian and U.S. habitat will need to be protected over the next decade. With this in mind, the Service and other agencies are working hard to implement the "swampbuster" and Conservation Reserve provisions of the 1985 Farm Bill, and the Emergency Wetlands Resources Act of 1986. Effective use of these authorities, enacted through the combined efforts of the Congress, the Administration, and conservation organizations, will help slow the projected wetland losses. The Service's efforts in this regard involve Canada, the States, Ducks Unlimited and other conservation groups in an encouraging cooperative effort.

Hand in hand with habitat protection must go responsible regulation of waterfowl harvests under the authority of the

Migratory Bird Treaty Act. Duck harvests in the U.S. varied from 12 to 16 million in the 1970's, and varied from 12 to 13 million during the first half of the 1980's. Additional restrictions were placed on duck hunting in 1985 and these restrictions, with minor variations, remained in effect in 1986 and 1987. During this three-year period, the harvest was reduced by approximately 25 percent to about 9.4 million ducks.

The Service has imposed additional harvest restrictions for some species for the upcoming season in response to low population levels and continued declines. The goal is to reduce harvest levels by at least as much as the reductions realized from the 1985 harvest restrictions.

The legitimate use of the waterfowl resource has been an American tradition for centuries. To ensure that this heritage continues, the needs of the resource to sustain itself must be balanced with the demands man places upon it. Hunting seasons are established to allow for the level of take appropriate for population and habitat conditions; that is, the numbers of waterfowl which may be removed from the population without detriment to the continued health of the resource.

The recognition that wildlife is a resource shared by all citizens goes back to the ancient Greeks and, in America, game laws are some of the oldest. Persons who take more than their share are taking from all of us including those who pursue hunting legally.

As a result, poaching reduces the opportunity for the legitimate hunter to utilize wildlife resources. Poaching is a serious crime and illegal hunting is contributing to the decline of the waterfowl resource in North America, particularly in the Central and Mississippi Flyways.

The interaction between the need for direct protection of the resource and the need for habitat preservation is a clearly understood principle of waterfowl management. The most controllable factor is the human factor. As human populations increase and habitat decreases, the need intensifies for protection by limiting human take. Compliance is an integral part of all good management plans, without which even the best plans will not succeed. However, we can no longer simply assume that all hunters will comply with the regulations.

One of the most direct management tools is effective enforcement of the regulations to ensure healthy levels of ducks and geese. Although our human efforts cannot control the weather, or rapidly create the vast acreages of habitat needed to return the birds to healthy numbers, we can have an immediate, positive, impact by conducting a law enforcement program which provides the utmost protection to the remaining breeding stock.

In order to accomplish the needed protection with its Special Agents, the Service primarily uses two strategies. In 1987 the technique of "task forces" was implemented throughout the United

States, with special emphasis on the wintering grounds of the Mississippi and Central Flyways. Service Special Agents, National Wildlife Refuge Officers, and State Conservation Officers were organized to saturate areas of suspected illegal activities. While our law enforcement officers use other methods to accomplish the Service's mission as mandated by the Migratory Bird Treaty Act, the task force approach has been found to be a very effective tool.

The results of these saturation patrols can be impressive. During the 1987-88 waterfowl season, Service Special Agents conducted investigations of nearly 4,500 violations of waterfowl hunting regulations in the United States. Approximately 1,100 of these investigations were conducted by task force personnel. One example of the damage poachers can inflict occurred in January 1988 when three individuals were apprehended with 168 ducks taken over bait. The legal limit, otherwise, would have been a maximum of five ducks each. Baiting, of course, is an illegal practice.

A second method used by the Service to investigate illegal waterfowl hunting is the covert, or undercover, technique. Undercover work is a tense job carried out by dedicated wildlife officers, but it pays enormous dividends in deterring the illegal killing of our waterfowl resources. Covert operations are often used when we are dealing with organized, commercial, poachers or particularly difficult violators.

An investigation of this type was used, for example, in exposing the illegal harvest of geese in Louisiana by "creeping." In this case, Special Agents operating covertly were able to videotape a number of poachers shooting into flocks of geese feeding on the ground, thereby killing or wounding hundreds of birds in a single volley. The violators were later arrested for violating the bag limit and successfully prosecuted in U.S. District Court. This investigation was instrumental in pointing out the potential harm to our resources by this method of hunting, and the State of Louisiana enacted a law to make "creeping" illegal for hunting waterfowl.

Twenty-three newly-hired Special Agents have recently been added to the Service's law enforcement ranks, thus bringing the total to more than 200 for the first time in 10 years. Fourteen of these new Special Agents have been assigned to duty stations located within the major waterfowl wintering grounds across the country in order to bolster our enforcement efforts in those areas. Six of these duty stations are in the Mississippi Flyway with the remaining eight stations divided among the other three flyways.

However, it will take more than additional manpower to adequately protect our precious waterfowl resources in their wintering grounds. As you know, concerned citizens, including sportsmen in the Midwest, have contributed over $200,000 to finance the purchase of a long-range helicopter that would be donated to the Service for waterfowl enforcement patrols to help us in our

efforts to halt the illegal kill of waterfowl. These contributions have come in the form of personal and business donations, retirement checks, and even from children's savings.

My commitment to protecting our waterfowl resources is unwavering. Poaching by illegal hunters is a threat that we cannot and will not tolerate. At the same time, I must emphasize that habitat protection is the key, and the Service is moving aggressively to meet the goals established by the North American Waterfowl Management Plan -- to restore fall duck flights to the 100 million level by the year 2000.

Mr. Chairman, you may be assured that the Service will do everything possible to ensure that our waterfowl resources are protected for future generations of Americans. I appreciate the opportunity to bring that message to the subcommittee, and I will be pleased to respond to any questions you may have.

TESTIMONY OF VIRGINIA VAN SICKLE, SECRETARY, LOUISIANA DEPARTMENT OF WILDLIFE AND FISHERIES, BEFORE THE HOUSE COMMITTEE ON MERCHANT MARINE AND FISHERIES, SUBCOMMITTEE ON FISHERIES AND WILDLIFE CONSERVATION AND THE ENVIRONMENT.

September 22, 1988

Mr. Chairman, I am pleased to be here today to present the views of the Louisiana Department of Wildlife and Fisheries regarding the waterfowl situation.

I firmly believe that unless we accurately identify and communicate to the American public the true causes of the continuous decline of migratory waterfowl and immediately initiate bold new actions at the national and international levels to address these causes, the future long term outlook for waterfowl will indeed be bleak. My concern is both for the future sport of waterfowling and for the loss of waterfowl as an important component of our nations natural resource heritage. We are indeed at the crossroads. More of the same in terms of token concern and action in response to the continued and unchecked destruction of wetlands will indeed lead to the future loss of our waterfowl heritage.

Mr. Chairman, there are three specific aspects of the current waterfowl situation that warrant our attention today. They include the recent controversy over restrictive hunting regulations, the continuing controversy regarding illegal harvest, especially allegations involving Louisiana, and the issue of continuous unchecked habitat destruction.

Hunting regulations have recently received a great deal of attention. The drought is causing a dramatic reduction in waterfowl production and, in response, season lengths and bag limits are being sharply reduced. We fully support the need to take such action. As a member of the Mississippi Flyway Council we strongly supported the general framework proposed by the Fish and Wildlife Service staff, as did most council members.

Louisiana is without question being hit very hard by this year's regulations. We will not have the traditional 9 day September Teal season that has been operational since the late 1960's. Five days were cut from Louisiana's West Zone season. The loss of the point system essentially reduces the potential bag limit from four birds per day to three. In addition, the number of hunting days statewide is being reduced from forty to thirty. Rather than the Fish and Wildlife Services stated goal of achieving a 25 percent reduction in duck harvest, Louisiana's harvest will probably be reduced in excess of 50 percent this year.

Indeed there are technical aspects of the regulations, such as sunrise shooting and loss of the point system, that we do not like. There are some aspects of the communication and coordination process that we do not fully understand. However, we know that our nation's waterfowl are in trouble and to debate, here today, issues that are merely symptons of a bigger problem would be counter productive.

A great deal of media attention has been focused on the illegal harvest of waterfowl, with much of the attention being focused on Louisiana. Let me set the record str ight. Simply stated Mr. Chairman, if you or anyone would like to come to Lou siana this year to observe how our waterfowl hunters pursue their sport or how our enforcement effort is directed, you are welcome.

Our enforcement effort will be second to none. I have appointed a former Assistant Attorney General to head up my enforcement division. Increased emphasis is being directed to key waterfowl areas and to enforcement of waterfowl regulations in general. Close coordination and cooperation with Federal personnel will be the standard. Our ticket tracking system has been totally revamped and is as tight as possible. We are building a closer working relationship with those Federal attorneys and U.S. magistrates who prosecute our migratory bird violations. There will be no political interference and that commitment comes directly from the Governor himself. While some dwell on exaggerated horror stories of the past, we are focusing our concerns on conserving waterfowl in the future.

The third issue I wish to address is, in my opinion, the true cause for concern. A drought, even one as severe as we presently face will end and the snow and rain will once again come to the prairies and presently diminished waterfowl populations can rebound, but once a wetland has been ditched and drained or filled and leveled, the loss is forever. We have seen half of the nations wetlands destroyed, mostly in this century. Over 100 million acres lost and the destruction continues. The same is occurring on the Canadian prairies. The Fish and Wildlife Service, in testimony presented to the Senate Subcommitte on Conservation and Forestry (copy attached), underscored the problem. The testimony referenced the fact that drainage rates in North Dakota and Minnesota in 1987 appeared to be the highest in ten years and that even the wetland conservation provision (Swampbuster) of the 1985 Farm Bill had thus far failed to diminish the wetland destruction. It is important to note that the Swampbuster provision has been heralded by many national conservation leaders as the best available means through which wetland destruction could be checked. In my own state we continue to lose an estimated 50 square miles of coastal marshlands each year to natural and man related causes.

Mr. Chariman, if we agree that loss of wetlands is the major cause of the decline of our migratory waterfowl then we must also come to terms with what actions must be taken to begin to correct the problem. I suggest for your consideration the following:

-The Swampbuster provision of the 1985 Farm Bill must be strictly enforced. In excess of 85% of the national wetland losses occur at the hands of agriculture. Furthermore, the Swampbuster provision should be amended to penalize those who are responsible for any wetland destruction not just those who produce crops on converted wetland.

-The Conservation Reserve Program should be administered so as to allow existing and previously drained wetland areas with a history of cropping to be included regardless of their erodibility status. We could potentially restore 400,000 acres of forested wetlands in our state alone.

-In our state we are working closely with the Fish and Wildlife Service and the Farmers Home Administration to protect and restore wetlands on Farmers Home inventory property. I understand a similar success story applies to Minnesota. In every state, particularly in North Dakota and other waterfowl production states, the same must occur. Your efforts to ensure that this occurs would be very helpful.

-The wetland mitigation and enhancement provisions of the Water Resources Development Act of 1986 must be funded. There are more than 600,000 acres of authorized wetland acquisitions involved.

-The Emergency Wetland Resources Act of 1986 could help make a difference but only if funds are specifically made available to accompany the National Wetlands Priority Conservation Plan that is presently being developed.

-I noted earlier the catastrophic loss of coastal marshlands that is occurring in our state, 50 square miles per year. These marshlands are some of the finest waterfowl wintering habitat on the North American Continent. A state formulated action plan to address this issue is presently under review. Uitimately, your full support, including availability of Federal funds, will be required if we are to be successful.

Yes Mr. Chairman, we are indeed at the crossroads. If we continue down the road of unchecked wetland destruction we will surely lose our waterfowl heritage. If we fail to champion and adequately fund the implementation of existing laws and programs that can make the difference there is little hope.

In closing let me quote one brief passage from the document that should serve as the cornerstone of all efforts to conserve our waterfowl resource. The document is the North American Waterfowl Management Plan. Secretary of the Interior Donald P. Hodel and Canadas Minister of the Environment Tom McMillian approved the joint venture plan in May of 1986.

"Reversing or modifying activities that destroy or degrade waterfowl habitat is imperative to the future success of waterfowl management. Efforts to resolve problems facing waterfowl have evolved from a focus on limiting the harvest to a need for creative action if current benefits from this resource are expected to continue. All other efforts will be in vain if the ongoing trend of habitat loss and degradation is not reversed."

Yes these are tight budget times but we always seem to be able to fund other emergency items. It is time for us to stop talking and start rebuilding our waterfowl habitat base. Someone needs to get this message through to the Presidents Office of Management and Budget and illicit a little cooperation. This Subcommittee is in a good position to begin the crusade!

Statement by

Kenneth M. Babcock (Missouri)

On behalf of the

Mississippi Flyway Council

to the

House Subcommittee on Fisheries and Wildlife

Conservation and the Environment

on

Declining Waterfowl Populations

in the Mississippi Flyway

September 22, 1988

Representative Studds and Subcommittee Members: Thank you for this opportunity to address the important subject of declining waterfowl populations in the Mississippi Flyway. I am Kenneth M. Babcock, Assistant Director of the Missouri Department of Conservation, and a member of the Mississippi Flyway Council. I have been professionally involved in waterfowl management for over 20 years. I presently serve as a consultant from the Flyway to the U.S. Fish and Wildlife Service's Regulations Committee.

My comments today will emphasize duck populations and duck habitat. Present populations of ducks approach historic lows; they are experiencing difficult times. In contrast, populations of geese have flourished. Their more northern (and thus less threatened) breeding habitat and the successful habitat and harvest management programs for geese have increased their numbers throughout North America and especially the Mississippi Flyway.

The plight of North American ducks is of great concern to those who cherish the annual migrations as a ritual of the changing seasons. This includes many outdoor enthusiasts, naturalists and bird watchers, as well as waterfowl hunters who hold perhaps the greatest stake in the waterfowl resource. They also have demonstrated their willingness to support waterfowl with meaningful habitat dollars.

Populations

The magnitude of duck population declines is reflected in the trends of breeding duck numbers in the 1970's versus the 1980's. During the 1970's, breeding populations in surveyed production areas frequently exceeded 40 million birds. By 1985, populations barely surpassed 30 million. Some important duck species (mallards, pintails, and blue-winged teal) have declined to record lows by the 1980's.

The effect of declining breeding populations on fall flights of ducks has been apparent. In the 1970's, fall populations routinely approached 100 million birds; in the 1980's there were as few as 62 million ducks. The duck decline is also evident in my state, Missouri, where migrating ducks number 50% of the population present during the 1970's.

The situation in 1988 is the most dramatic evidence of the extended drought that has persisted since 1980. During this period, wetlands and upland nesting cover have been even further degraded while agricultural acreages have expanded. Few duck nests are successful in degraded habitats. Nesting hens are lost to predators and broods must exist in less secure habitat during that vulnerable period of life prior to attaining fight. Surveys in Canadian prairies show that nearly one-half of the wetland basins and more than three-fourths of wetland fringes have been affected by agriculture during recent years. An average loss of one-half million acres of wetlands annually in North America does not bode well for the continent's ducks. The severity of the drought in 1988 assures that critical upland nesting habitat adjoining the prairie wetlands and the wetlands themselves will be in a deteriorated condition for 1989 and probably beyond.

How we arrived at today's situation is a complex story that involves economic, agricultural and meteorological considerations as well as duck biology. Our first inclination is to single out farmers, hunters, poachers, law enforcement officials, predators, or government agencies. The issue is more complex than that and there is no quick fix to the problem. A combination of factors is responsible for the current dilemma and a comprehensive solution will be required to ensure a recovery.

Habitat

No area rivals the importance of the glaciated prairie pothole region of the northcentral U.S. and southern Canada in the production of ducks. Western Minnesota, North and South Dakota, eastern Montana and southern portions of Alberta, Saskatchewan and Manitoba are included in this region. The prairie pothole region produces more than one half of the continent's fall duck flight and has for apparent reasons been the focal point of habitat management efforts on the breeding grounds.

The region also possesses some of North America's richest agricultural lands. Wetlands are non-productive from most agricultural viewpoints. They interfere with farming efficiency by restricting machinery and reduce the acreages devoted to crops. Therefore, it's not surprising that wetlands are considered obstacles for farmers. Ducks, in some areas, also compete directly with farmers by depredating crops that took the spring and summer to produce. Ducks (and the wetlands they require) and farming have not been considered compatible in some areas. The result has been several generations of wetland draining, ditching and leveling, and elimination of upland nesting cover.

The question facing waterfowl managers and the agricultural community is "How can ducks and farming co-exist?" The answer is, they must, because their problems are rooted to common issues. Agricultural lands and waterfowl populations share a common future if problems with soil and water are not addressed. The upland cover that provides nesting habitat for prairie ducks also conserves the region's soils. Increased soil salinity, soil erosion and depleted ground water are issues that threaten agriculture's future in prairie regions. In Canada, total costs in lost productivity caused by soil degradation are estimated at $1.3 billion. In one or more ways, the agricultural problems in the prairie region originate with man's use of the

land. Solutions to agricultural and waterfowl problems must start with land use as well.

Farther south, wetland habitats have fared no better. For example, loss of bottomland forests important to wintering mallards has occurred at a rate exceeding that of wetland loss in the prairies. There has only recently been any recognition that habitats in migration areas and on the wintering grounds are also important to survival and production of ducks. The condition of birds arriving on the breeding grounds may be a key factor affecting annual production.

The rivers of the lower Mississippi Valley once spilled with regularity onto expansive forested floodplains. Today the rivers are confined by levees or channelized to increase the agricultural land base and assist in flood control. The forests are gone in most areas and many remnant wetlands have been eliminated, often with federal government subsidies. Projects of the U.S. Army Corps of Engineers in the lower Mississippi Valley continue to degrade important winter habitat. Mitigation for habitat destroyed by efforts such as the Yazoo Basin Project is vital to the welfare of wintering waterfowl and must proceed at the same rate as project construction.

Coastal wetlands are still expansive. However, increased development has contributed to rising salinity which changes plant and invertebrate composition and decreases overall wetland value to wintering waterfowl. Winter habitats have, until recent years, been afforded secondary importance to breeding habitats. This trend is changing, however, with our growing knowledge about wintering waterfowl and their needs.

Hunting

Waterfowl hunting restrictions are viewed by many as a logical move to assist the recovery of duck numbers. However, the role of harvest on duck

populations is not entirely clear. Historically, harvest restrictions were implemented during years of reduced breeding populations and prairie drought, and were liberalized during periods of improved populations and habitat. It is unclear whether population recoveries were the result of the hunting restrictions or the improved habitat. Over fifty years ago, during the last major extended drought, waterfowl regulations underwent a dramatic revision -- live decoys, baiting, sink boxes, large guns and other traditional methods used by waterfowlers were disallowed in the interest of prompting waterfowl recovery. During the same era, the federal duck stamp program was implemented and emergency funds were provided by Congress to improve the national wildlife refuge system. The results of these conservation efforts are with us today and form the basis of modern waterfowl conservation.

During the period 1980-84, hunting seasons were stabilized to investigate some of the factors that affect waterfowl populations. Results of this effort indicate that habitat conditions are major influences on the survival and production of ducks. The impact of sport harvest (and crippling losses) is still not clear.

It is important to realize the restrictive regulations that will be implemented in 1988 will not restore duck numbers to acceptable levels unless long-term habitat trends are reversed, and some relief arrives from the persistent drought. Waterfowl hunting is one element that can be controlled and, thus, is now a manageable factor in the duck production equation. Regulations implemented in 1988 will reduce duck harvests by at least 50% from pre-1985 levels and ensure the availability of adequate breeding populations. Restrictions alone, however, will not restore duck populations.

Illegal Harvest

Illegal duck harvests are an added drain on populations that offend the majority of waterfowl hunters. Waterfowl poaching accounts have been widely covered in the press lately. The magnitude of illegal harvests is unknown but probably represents a substantial source of duck mortality. Poaching is not, however, limited to certain portions of the Flyway. It likely occurs in all areas where waterfowl are abundant (thus presenting the opportunities) and where local traditions fail to condemn the practice. Poaching issues must be viewed within the context of other waterfowl issues, most importantly habitat loss and degradation. The Mississippi Flyway Council has encouraged research into the effects of poaching and the effectiveness of our law enforcement. More knowledge is required to understand the effectiveness of hunting regulations, their enforcement and the penalties assessed to those who violate regulations. Law enforcement efforts are crucial to minimizing illegal harvest, but they must be accompanied by educational efforts to redefine the local standards which allow poaching practices to continue uncondemned.

Disease is another drain on duck populations, but estimates of its significance are largely unavailable. Similarly, managers do not know the long-term effects of pollutants, acid rain, toxins or long-term changes in meteorological conditions.

The Outlook

The report on the status of ducks is disheartening, but is not without some optimistic observations. There is growing evidence that society is recognizing the ecological and economic roles wetlands play; for example, in recharging depleted groundwater, metabolizing pollutants, supporting endangered species and providing floodway area to minimize downstream inundations. For the first time, private and public conservationists are

working with farm groups, government agencies and the Congress to ensure that wildlife habitat and soil conservation concerns are meaningfully reflected in our nation's agricultural policies. The Food Security Act of 1985 is one excellent example. Swampbuster provisions now prohibit participation in U.S. farm programs by farmers that convert wetlands to crop lands. Sodbuster provisions afford similar protection for grasslands, some of which provide valuable waterfowl nesting cover. The Conservation Reserve Program provides a 10-year effort to remove highly erodible lands from agricultural production. Some CRP lands provide valuable wildlife habitat including nesting habitat for prairie ducks. More than 10 million acres have been entered into the program in the prairie region alone. Compliance provisions require completion of farm plans as a requirement for participation in federal farm programs. These are significant programs that make sense. They contrast greatly with other federal programs where the objectives of individual agencies run in exactly the opposite direction -- e.g., USDA subsidizing wetland drainage while USDI struggles to preserve those that remain.

The North American Waterfowl Management Plan is an international strategy for cooperation and comprehensive planning to improve duck populations. The 1986 plan provides a vital link between the U.S. and Canada and between private and public waterfowl interests. It sets ambitious population objectives for ducks of 62 million breeders and a fall flight totaling 100 million birds. Objectives for dabbling ducks include breeding populations of 8.7 million mallards, 6.3 million pintails and 385,000 black ducks -- a return to the average populations of the 1970's.

The North American Plan establishes specific habitat objectives to accomplish the task of improving waterfowl populations. In the U.S., these are to protect and improve 1.1 million acres of production habitat in the

prairie pothole region, 686,000 acres of bottomland hardwoods and wetlands in the Lower Mississippi River and Gulf Coast regions plus other critical wetland habitats elsewhere. The Plan also presents a framework for cooperative funding of habitat initiatives. These Joint Ventures are combined efforts of state, federal, and private sources. A system of matching funds ensures that available dollars go farthest in meeting habitat objectives. Thirty-four important habitat areas are identified for the U.S. and Canada. Seven have joint venture habitat programs already underway. Others are planned. As always, funding for such an immense endeavor is a tremendous challenge. It is estimated that $1.5 billion will be the price tag for achieving the objectives of the North American Waterfowl Management Plan. Annual appropriations by the U.S. Congress with authority to expend significant portions of these funds in Canada are essential to the success of the plan. Many of us are optimistic that with diligence and great effort, the damage to wetlands that has occurred in North America and, consequently, the decline of duck populations, can be reversed through the 15-year effort outlined by the North American Waterfowl Management Plan.

Conclusion

In conclusion, duck numbers in the Mississippi Flyway and elsewhere in North America have declined to historic lows in recent years. A variety of causes are involved, but the most important are continuing losses of wetland habitat on breeding, wintering and migratory grounds and the effects of a persistent drought that has lasted through the 1980's. The drought will end; however, the impact of lost wetlands will persist in keeping duck numbers below desired levels until other habitat remedies are addressed.

Habitat loss is due to a variety of land use changes. The most significant of these stem from conflicts with modern agriculture. Agriculture

and waterfowl share a common future because both are dependent on sensible use of our lands, soils and water.

Hunting regulations have been tightened to ensure that breeding populations remain at satisfactory levels. I must reinforce the point that these restrictions will not by themselves generate a population recovery. The drought must subside and critical habitats must be restored and protected. There are other drains on duck numbers that must be addressed -- poaching, disease contaminants, etc. -- but these should be viewed in the context of other issues, especially those that deal with habitat.

Finally, there are encouraging signs. The public seems to be recognizing the inter-relationship of our environmental problems. Our agricultural policies are becoming more comprehensive in scope and in the issues which they address. The conservation provisions of the Food Security Act of 1985 are excellent examples which hold much promise for improving the status of waterfowl habitat in the U.S.

The North American Waterfowl Management Plan is similarly encouraging because it establishes a waterfowl population benchmark to achieve, charts a course to follow, and provides the cooperative framework to enable all interested parties to participate. Congressional appropriations to fund this plan are essential. The road to recovery certainly will be long, but I and others are convinced that we are headed in the proper direction.

Thank you very much.

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TESTIMONY OF

MICHAEL E. BERGER

DIRECTOR OF GOVERNMENT RELATIONS

DUCKS UNLIMITED, INC.

REGARDING

THE STATUS OF NORTH AMERICAN WATERFOWL POPULATIONS

BEFORE THE
U.S. HOUSE OF REPRESENTATIVES
COMMITTEE ON MERCHANT MARINE AND FISHERIES
SUBCOMMITTEE ON FISHERIES AND WILDLIFE CONSERVATION
AND THE ENVIRONMENT

1334 LONGWORTH HOUSE OFFICE BUILDING
SEPTEMBER 22, 1988

I am Michael Berger, Director of Government Relations, for Ducks Unlimited, Inc. As you can imagine, DU's nearly 600,000 members nationwide are extremely concerned about the present status of and future outlook for North America's waterfowl populations.

For more than 51 years, Ducks Unlimited has focused its efforts on the protection, enhancement, and management of wetlands for the benefit of wild waterfowl. We recognize that without adequate supplies of quality habitat, populations cannot be maintained in abundance. On only a few occasions has this fact been more clear than during the drought of 1988.

Because of media coverage focused on the drought situation in the United States, this year's drought seems a critical and unfortunate phenomenon. But the sad reality is that similarly severe drought conditions have been commonplace throughout the major prairie waterfowl breeding areas of Canada for the past decade. To put this into perspective, of the five driest years in Canadian prairies since 1961, three occurred in the 1980's. And, since surveys began in the United States in 1974, the annual pond count has totalled over one million ponds except in four years, three of those occurring in the 1980's. In the absence of this critical wetland and associated upland nesting cover, duck reproduction suffers and waterfowl populations have declined as a direct result.

Neither Ducks Unlimited nor even the United States government can control the amount of rain and snow that falls to replenish wetland basins. However, we can work to preserve these wetland and upland areas so that they will be available to waterfowl when moisture does return.

One of the most important things that can be done right now--by this committee, by the Congress, by the Administration, by private conservation organizations, and by individuals--is to support the implementation of the North American Waterfowl Management Plan. The Plan was signed by the governments of the United States and Canada in May, 1986. It is an unprecedented recognition of waterfowl's plight and blueprint for the general course of action necessary to return waterfowl populations to conditions of relative abundance of the 1970's. In general, the goal is to insure fall flights of ducks of at least 100 million birds by the year 2000. The means of accomplishing this goal are the protection and improvement of over 5.5 million acres of waterfowl habitat in Canada and the United States. So far, eight joint ventures--cooperating teams of federal, state, provincial, and private interests sharing a common dedication--have been organized and are beginning project implementation.

Ducks Unlimited is fully committed to the Plan and the joint ventures. We have staff working with all joint venture committees and Matthew Connolly, our Executive Vice President, is the chairman of the U.S. Implementation Board--a group of sixteen national, private organizations dedicated to achieving Plan objectives. In addition, DU has pledged $300 million to Plan implementation over the next fifteen years. This is an amount over and above the $500 million we have scheduled for our traditional habitat endeavors during this same time frame.

While we feel this is a major commitment, and one in which we take great pride, it is inadequate to attain the Plan's

objectives. States have been quite generous in their support for the Plan so far, and I anticipate their support to increase in the future. However, Congress has not yet been made a full partner in Plan implementation, and this participation is urgently required. Enactment and establishment of a National Wetland Trust or a National Habitat Endowment, which would fund wetland habitat acquisition and developments, would be most timely and beneficial. This committee could be instrumental in focusing Congressional attention on these issues as well as the need to make the necessary and appropriate long-term financial commitments to the North American Waterfowl Management Plan.

In addition to a shortage of adequate habitat on the breeding and wintering grounds, other factors such as predation and pesticides are taking a toll on the ducks, and are increased in their significance by the paucity of habitat available.

Illegal waterfowl hunting is an issue which has come to public attention this year as another possible cause of diminished waterfowl populations. DU abhors such acts not only because they are illegal, but also because they are immoral and unethical. DU addressed this issue in our current magazine and intends to focus additional attention on the problem during our Sixth International Waterfowl Symposium scheduled for June, 1989, in Washington, D.C.

Wildlife law violators are criminals who should be held accountable for their crimes. Federal and state governments have indicated their dedication to wildlife law enforcement by an annual expenditure in excess of $300 million. I am sure that

more could be used to good effect. However, more attention needs to be focused, not only on apprehension of outlaws, but also, and more importantly, on education to raise the public consciousness regarding compliance. This process starts with youth, and is one of the major reasons Ducks Unlimited initiated its Greenwing program in 1979. Today over 61,000 youngsters, seventeen and under, are enrolled as Greenwings. The program focuses on education and stresses not only biology and identification, but also sportsmanship and ethical conduct afield. We believe this approach will yield significant benefits in the future.

We would also encourage state and federal agencies to dedicate increased funding to habitat acquisition and enhancement programs. Secure habitat is the major insurance policy we can buy to protect waterfowl and to provide long term benefits to the vast majority of sportsmen who operate entirely within the bounds of legal and ethical conduct. These investments in habitat would also be of benefit to the multitude of wildlife enthusiasts and to all citizens who enjoy the many attributes of healthy and productive wetlands.

In conclusion, the factors that influence the size of North America's waterfowl populations are many. Each varies in its effect depending upon the intensity of other factors. However, the one constant in the waterfowl equation is the primacy of habitat. Without an adequate supply of breeding, migration and wintering habitat skies filled with waterfowl can soon become only a memory. Actions to protect and increase habitat for waterfowl must be taken now.

International Association of Fish and Wildlife Agencies
(Organized July 2, 1902)
Hall of the States
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Jack H. Berryman, Executive Vice President

STATEMENT OF THE INTERNATIONAL ASSOCIATION OF FISH AND WILDLIFE AGENCIES
CONCERNING THE STATUS OF WATERFOWL POPULATIONS
BEFORE THE SUBCOMMITTEE ON FISHERIES AND WILDLIFE CONSERVATION
AND THE ENVIRONMENT
GORDON C. ROBERTSON, LEGISLATIVE COUNSEL
SEPTEMBER 22, 1988

The International Association of Fish and Wildlife Agencies, founded in 1902, is a quasi-governmental organization of public agencies charged with the protection and management of North America's fish and wildlife resources. The Association's governmental members include the fish and wildlife agencies of the states, provinces and federal governments of the United States, Canada and Mexico. All 50 states are members. The Association has been a key organization in the promotion of the principles of sound resource management and the strengthening of federal, state and private cooperation in protecting and managing fish and wildlife and their habitats in the public interest.

The Association is pleased that the Subcommittee has decided to address the challenges to waterfowl. While our invitation requested comments on the condition of waterfowl in the Mississippi flyway, we believe that our comments apply, and should, to all flyways. There is interchange between flyways, and the overriding challenges to waterfowl are generally the same continent-wide. Our statement will address 5 points we believe are major areas that can have positive impacts on the waterfowl resources of this Nation. They are also areas with which this Subcommittee has jurisdiction and therefore is in a position to be of assistance.

1. The Refuge Revenue Sharing Act is extremely important to the continuing acquisition of wetlands in several areas of this country. The Act is the federal government's commitment to pay local governments amounts to offset real estate tax losses where the federal government purchases and holds wetlands. Wetlands are the single most important ingredient to waterfowl habitat. They are also the most diverse and productive habitats for a variety of other important fishery and wildlife species; and they serve a multitude of other purposes. For wetland acquisition to progress, local governments must be compensated for the loss in their tax bases. Generally speaking, the need for fiscal year 1990 is approximately $17 million. Currently, $6 million is annually appropriated toward this obligation and another $4 million is gained in net receipts from various refuge operation activities. The shortfall is $7 million. This has created a critical situation in some areas, especially in the north central regions of the country where local governments

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have made a determined effort to block further wetland acquistions until there are improvements in payments from the Refuge Revenue Sharing Act. As this Subcommittee makes its recommendations for appropriations we request increased funding for the Act be included.

2. The U.S. Fish and Wildlife Service operates the world's most extensive and most envied wildlife refuge system--453 refuges, consisting of 90 million acres. The basis for its creation was to perpetuate and manage migratory waterfowl. Today that rationale is still logical and prudent, dedicating over 340 refuges to migratory birds. The Service holds important wetland areas in each of the 5 flyways, and continues to purchase additional areas with revenues from the Migratory Bird Conservation Account, which is funded by purchases of migratory bird stamps and import duties on foreign firearms. While hunters constitute the bulk of support for refuge acquisition, they represent only 7 million of the 33.6 million refuge users. The system's holdings are the envy of other countries, but its physical facilities are in desperate need of repair. We are not speaking of visitor buildings but the heart of the refuges--the dikes, levees and water control structures that create and maintain the critical habitats needed for a refuge's seasonal operations. The system requires approximately $450 million to meet the current maintenance schedule. Again, this Subcommittee is in an important position to recommend to the Appropriations Committee the necessary amount and justification. We urge you to do so.

3. The U.S. Fish and Wildlife Service's Division of Ecological Services reviews 11,500 applications each year to assure that important wetlands are not filled. This mostly overlooked but highly important function is not only a responsibility of the Service but one of the many areas on which our state members and the Service work very closely together. The Division of Ecological Services must have adequate personnel and travel support to make on-site inspections, give expert testimony and work with the U.S. Army Corps of engineers to assure that wetlands are protected as intended in the Clean Water Act. The Division of Ecological Services needs 50 additional FTEs and $1.5 million to assure this role. We recommend that the Subcommittee urge adequate appropriations for this important review role of the Service to protect habitat.

4. In May of 1986 Canada and the United States signed the North American Waterfowl Management Plan. In March of this year Mexico became a signatory. This is an ambitious 15-year plan for migratory waterfowl and all wetland wildlife. It will cost approximately $1.5 billion to implement over the next 15 years. Our State Members contributed $1 million in 1987 and are currently in the process of examining a contribution of $2 million for this year. These monies are matched by private waterfowl organizations, and then the total amount is matched by the National Fish and Wildlife Foundation. Canada, in both the private sector and federal and provincial governments, will match these amounts. This is explained to demonstrate the commitment by our members and the private sector. The Plan has caught the imagination of many individuals and has immense popularity and momentum. Each year the Plan has been one of this Association's high priorities. Since its beginning in the mid-1970's we have been closely involved. During the last 2 years we have gained $16 million from the Appropriations process for the plan, in addition to the funds raised in the private sector. The Plan is a key factor toward

maintaining habitat for migratory birds in North America. We urge the Subcommittee to support a $25 million acquisition program for the plan in FY 1990.

5. We are aware that the Subcommittee is concerned about the illegal harvest of waterfowl. This Association's State Members are also concerned when waterfowl is taken outside of the prudent measures established by the States and the Fish and Wildlife Service through the thorough and elaborate system of the Flyway Technical Committees and Councils. The Subcommittee should assure the Service has adequate law enforcement personnel and equipment to cooperate with state agencies to minimize illegal activities. We do not believe it is appropriate for Congress to redirect or direct Service law enforcement activities. This is a dynamic arena and the agency has the expertise and needs the support of Congress.

The majority of our testimony has been spent on the critical need for waterfowl and all migratory birds related to wetlands--habitat. We have long recognized this to be the key. In the United States wetlands are lost at the rate of 500,000 acres per year. The efforts of dedicated professionals and interested citizens have failed to stop this increasing rate. Fish and wildlife have always taken a back seat to other interests not compatible with wetland protection. Such ambitious undertakings as the early success of the North American Waterfowl Management Plan offer signs of change.

Other signs of change are the successful wetland restoration programs, through provision of the 1985 Farm Bill, that two of the U.S. Fish and Wildlife Service Regions have undertaken. In the midwest, Region 3 has restored in its eight states 1,262 wetlands under the Conservation Reserve Program and Farmers Home Administration inventory properties (both through establishment of conservation easements and fee title acquisition). In the midcentral area, Region 6 has restored wetlands on 1,621 acres of Conservation Reserve Program or adjacent lands, and has recorded 11,452 acres under Farmers Home Administration conservation easements on inventoried properties for wetland restoration. In many cases restorations can be for as little as $300 by plugging a ditch.

It is true that 1988 will offer one of the lowest fall flights of waterfowl, but we cannot blame this on illegal activities. The market hunters of the early 1900s were the last real threat to sustainable viable populations. This year's decline is, in part, the culmination of below-average precipitation over the last several years in critical production areas. However, the decline is ultimately and directly related to 1) quality of available habitats; 2) quantity of habitats; and 3) dispersion of habitats. If we wish to restore and maintain migratory waterfowl the primary focus is habitat.

Statement of the Izaak Walton League of America

before the

House of Representatives Committee on Merchant Marine and Fisheries

Subcommittee on Fisheries and Wildlife Conservation

Presented by:

David F. Zentner

Past National President and Member of the Board of Directors

Izaak Walton League of America

22 September 1988

Mr. Chairman, members of the Committee, my name is David Zentner and today to speak on behalf of the members of the Izaak Walton League of America. I am a past National President, past Chairman of the Executive Board and currently serve on the League's Board of Directors. We appreciate this opportunity to come before the Committee to present our views and recommedations regarding the decline of the duck populations in North America.

The Izaak Walton League of America is a national memberhsip based, non-profit conservation organization dedicated to the protection and restoraton of America's natural resource heritage for present and future generations. The League has over 47,000 members nationwide in 376 chapters and 20 state divisions. For over sixty-five years the protection of an abundant waterfowl population along the Mississippi Flyway has been among the League's top conservation priorities and remains so today. In 1923 it was the then fledgling Izaak Walton League that convinced Congress and President Calvin Cooledge to establish the Upper Mississippi Wildlife and Fish Refuge, saving hundreds of thousands of acres of waterfowl habitat from conversion to other uses.

This July, at our national convention in Green Bay, Wisconsin, the League again considered the plight of America's waterfowl populations and adopted the attached resolution regarding the 1988-89 Duck Season and the North American Waterfowl Plan. This resolution calls for restricting the harvest, wherever necesary to protect breeding populations, for funding to support the implementation of the waterfowl plan, and for measures to reduce illegal harvest and improve hunter education. My statement here today is an applification of the that policy statement.

In addition to my affiliation with the Izaak Walton League, I am also an active member of Ducks Unlimited, the Minnesota Water Fowl Association, Trout Unlimited, the Duluth Retriever Club, and the Ruffed Grouse Society. I have served on the Reinvest in Minnesota Comission (Governors Commission on Hunting and Fishing), the Minnestoa Pollution Control Agency, and currently serve on the Governor's Committee on the State (Minnesota) Environment Trust Fund. But more importantly, I have been an avid waterfowler for 44 years. As a youngster I began my fascination with America's waterfowl resource, spending hundreds of hours observing and identifying ducks geese and swans. As an adult I have continued this interest through dog training, hunting and conservation work.

This fall we are told that we will witness the migration of approximately 66 million ducks in North America. This compares to 150 million ducks when I was a young hunter. We are told that in 1985 there were even fewer birds, some 62 million.

Our ducks are in the deepest crisis of our nation's history. The drought in Canada during almost all of the 80's has now expanded to the most important breeding areas in the U.S. with a devastating impact on man and wilddlife. This is much worse than during the dust bowl days of the 30's. Why? - back in the 30's we had drained but a small portion of the wetlands in North America, today we've lost enormous acreages throughout the continent. In the 30's once the drought ended and the rains came, the wetlands returned. In the 30's there were fewer people with much less pressure on our environment.

Today, human pressures on our waterfowl extend far beyond the loss of wetlands. Uncultivated uplands bordering pothole wetlands are rapidly being burned and plowed, removing cover that is critical to nesting success. Herbicides and pesticides impact waterfowl directly through both acute and chronic poisoning. Toxic spills and irrigation return flows threaten waterfowl refuges in California and Nevada. Acid rain may be contributing to the decline of black ducks and goldeneyes. Loss of habitat concentrates waterfowl on the remaining wetlands, raising the damage of epidemics.

Habitat

Our loss of critical habitat continues to be devastating. This includes breeding, transitory (used during staging and migration) and wintering habitats. Agriculture continues to destroy wetlands of all sizes. Industry and development of real estate, also contribute significantly.

I can't emphasize enough that, when I speak of habitat on the breeding grounds, I mean upland habitats as well as the wetlands themselves. Several of our most important species, among them mallards, pintails, blue winged teal, depend on uplands. These upland habitats have been destroyed at an alarming rate. And this destruction makes it far easier for predators to find and destroy nests and inflict mortality on adults and young. Our wildlife experts know that today these conditions exist over large areas of our nesting habitat and as a result, nesting success is often at levels below that needed to sustain populations.

There is no long term hope for our ducks without an adequate habitat base of wetlands and the adjacent uplands. If we fail here, only a remnant population of birds will remain.

The importance of wetlands to society extends far beyond waterfowl production Wetlands are beneficial in the maintenance of water tables, in slowing floods, and thus retarding soil erosion. Wetlands provide critical habitat for fur bearers and hundreds of species of non-game animals and for endangered species. At the same time wetlands help purify waste, and they protect our waterways from sediment and toxics.

Yet in citing these few (among the many) values of wetlands, we are confronted by the fact that destruction continiues, unabated. Preventing drainage, re-establishing formerly drained wetlands, acquiring existing wetlands are all essential.

There may also be substantial opportunity to improve the productivity of the wetlands we now have. There are projects in process on both large and small wetlands that must be expanded if we are to receive value from these efforts soon. Time is critical and strong emphasis must be placed on completing this work.

Habitat Recommendations

Fund the North American Waterfowl Management Plan. So far little has been done the the U.S.A. to fund the plan at a level consistent with a $1.5 billion objective by the year 2000. Ideally, this funding should come from general revenues. At least $125 million per year is needed. Wetlands and waterfowl benefit many millions of our citizens, not just the 2 million that hunt ducks. The wetlands protected under the Plan will be of value to a wide variety of wildlife in addition to ducks. These wetlands and the waterfowl they produce will enrich the lives of scores of non-consumptive users.

Others have suggested consideration of an additional exise tax on steel shot, say a penny per shell, modeled loosely on the highly successful Wallop-Breaux amendment. The committee may want to evaluate this idea with the U.S. Fish & Wildlife Serivce and private agencies.

Maintain CRP and Swampbuster provisions in title 12 of the 1985 Farm Act and seriously administer and enforce them.

Harvest

Wildlife managers generally come out of their formal education with the strong belief that harvest usually plays but a small role in wildlife populations. The kill is said to be "compensatory mortality" (population losss that if not hunter induced, would occur through other means).

Wildlife managers often contend that you cannot shoot what is not there. This means that low populations produce low harvests, and that opening seasons while populations are low provides recreation and revenue to maintain support programs.

Waterfowlers have long been told that when the prairie pothole areas fail, ducks simply move into the more northerly parkland regions in Canada and nest there.

If we had anything close to adequate habitat, if we were not in the midst of a drought, such old, time tested and honored dictum would hold up. Today it won't.

It won't because we are seriously close to shooting our breeding stock, if we are not actually doing so already.

It won't because there are strong suggestions today that harvest remains high in a declining population of prairie mallards, based on Dr. Sparrowe's analysis of the period of stabilized regulations.

It won't be because our wildlife experts are advising us that the pioneering of ducks into more northerly parklands for reprouction is not taking place in significant fashion and likely never did.

It won't be because the natural mortality of ducks is much lower than for species such as grouse or quail. Ducks are relatively long lived (10 years or more) and therefore stockpiling such species as mallards is not something that is to be discarded out of hand.

1988 has been a year to remind us of the tremedous impact of the poacher. Dennis Anderson of the St. Paul Pioneer Press, in a revealing documentary series has exposed awful losses in Louisiana. Some estimate illegal kill equal to the estimated 1.2 million legal kill. Other estimates range to four times the legal kill. I do not know what the exact loss is. Suffice it to say that were it is large -- perhaps 1/2 of the legal kill. We simply cannot afford to lose even 625,000 birds. I am very encouraged by reports reaching me that the Governor of Louisiana and Louisiana game management professionals are committed to eliminating this menace. All duck hunters can cheer the news Louisiana's hunters are not alone.

Harvest is complicated by regulations that assume hunters who are far more skillful than the people actually out there in the blinds. Most hunters cannot identify birds in flight, do not handle guns effectively with regard to killing range and shooting skill. Most hunters have very little knowledge about our continent's waterfowl; They are not consistently able to identify birds in the air or even in the hand.

Yet, beginning in the 1960's, state management agencies convinced the USFWS to agree to a continuing series of traditional season changes that had to assume high hunter skills and conduct including:

* Special teal seasons
* Bonus ducks
* Point systems

Each of these measures was designed to allow increased harvests by being selective by species and population -- shifting harvest to less popular, relatively "undershot" birds. But each of these assumes a high level of knowledge and skills among duck hunters -- levels that are not found, in practice, in the field. For example, the point system depends on the ability to accurately identify ducks, especially hens. One-half hour before sunrise, it depends on ability to identify ducks, on the wing, under extremely low-light conditions. Even the best waterfowl hunters can not make accurate identifications under those conditions. The result is that hen mallards and pintails, the birds we need to protect, are taken unintentionally and unnecessarily.

Habitat is not everything. In spite of the drought in the 80's, there are reports of breeding potholes in Manitoba and Saskatchewan that are unoccupied. That tells us that even with one million potholes dry in Saskatchewan, not enough ducks remain to fill those that have water. We simply have not been sending enough breeding ducks north each spring. Minnesota experienced the same thing in the 1970's with its mallard population. Minnesota took action to restrict the kill of its nesting mallards and the population appears to have responded.

We have habitat problems, and we have harvest problems. We must deal with both. And we must do so now.

Recommendations

The USFWS should continue to resist pressures from states that want more liberal harvest. Season closure should be invoked if needed. The Service's approach should be biologically conservative and give the benefit of the doubt to the ducks and the future.

Contingency plans should be established at the State and Federal levels to replace lost revenues in the event a season is closed.

Hunter education for duck hunters should be endorsed by Congress, funded and implemented by the state and federal agencies. Duck hunters should be required to demonstrate skill in waterfowl identification and take several hours of course work on waterfowl conservation. (We require gun safety training for youth. We require in Minnesota, orientation for hunters before they hunt turkey or moose.) The hunter must want to be ethical and the hunter must have the skills necessary to protect the resource.

Law enforcement capability in the USFWS must be beefed up. These funds cannot be at the expense of other agency funding, they must be in addition.

Dr. Jackson of the University of Wisconsin at LaCrosse points out that poaching occurs where opportunity arises.

The Politics of Duck Management

The committee should look at ways to strengthen the USFWS. Director Dunkle and Dr. Sparrowe are committed and dedicated public servants. So are many present and former employees. Director Dunkle is to be commended for his actions to restrict harvest during the 1988-89 duck season.

The USFWS has had a long history of overwhelming responsibilities, inadequate funding, and an uncertain political base. Often in its work to defend our wildlife resources, it is simply outmanned by other federal agencies whose plans involve projects with negative effects on wildlife. At times it has simply lacked the constituency and political support to manage the resource as conservatively as prudence might dictate.

In its duck management policies it has often been dominated by the states who have successfully lobbied for liberal bags even in the face of a declining resource base.

Duck hunters have done more for the resource than anyone else. Yet, we have failed to prevent this crisis. I believe duck hunters will again be the best, and probably the only hope for ducks, but they must have a strong and able ally in the Fish and Wildlife Service and the U.S. Congress.

Related Issues

Acid Rain: Paul Hansen of the Izaak Walton League has presented a compelling curcumstantial case on the relationship between the decline of the Black Duck (also Ringneck and Goldeneye) in the Northeast and acid rain. What research has or is being done coroborates the connection described by Mr Hansen. No less a noted authority than Mr. Frank Bellrose credits Mr. Hansen with pointing out the fact that acid rain is in all likelihood another destructive agent facing ducks.

Chemicals: Pesticides may be playing a far greater role than any of us imagined until recently. This is probably of greatest significance to upland nesting species like mallards, pintails and blue winged teal. We must support financially and otherwise encourage research in this area.

Predators: Predator management is more crucial than ever. Not only have our losses been heavy in wetlands, but the accompanying uplands have lost their cover in many areas.* Nesting success in these areas has been shown to be below minimums necessary to maintain populations. Upland management and predator control are critical.

Conclusions

Our ducks are staggering under multiple assaults. With the current condition of our habitat base, harvest becomes a larger concern. We cannot ignore either habitat or harvest. We must fix our attention on both. Time is short. This is not the time to launch into long discussions on funding alternatives, it is a time for action. Our waterfowl are a part of our national heritage and they benefit and enrich the lives of all Americans.

We need to cooperate and work together. All of us in the private consesrvation community, with those in the public conservation community and our elected representatives. Please join in this time of need, in transforming this crisis into an opportunity for a lasting solution.

THE IZAAK WALTON LEAGUE OF AMERICA -- 1988 -- RESOLUTION

RESTRICTION OF 1988-1989 DUCK SEASON AND FUNDING FOR N. AMERICAN WATERFOWL PLAN

North America's duck populations have experienced catastrophic declines over the past 30 years. Current continental duck populations are the second lowest since records have been kept. The problem has been exacerbated by the prolonged drought conditions in the major nesting areas of the United States and Canada.

Habitat recovery and management is essential to the recovery of our nation's waterfowl heritage. North America's best waterfowl biologists have composed the North American Waterfowl Management Plan as a comprehensive and cooperative way to reverse the loss of habitat and decline of waterfowl populations. Although the Reagan Administration signed the Plan, it continues to refuse to support adequate federal funding for it.

Even though duck populations have been severely depressed in recent years, harvest rates remain near levels of several years ago when populations were higher. Historically, species such as the wood duck, tundra swan, and greater snow goose have responded greatly to reduced harvest when their populations were down.

Waterfowl enforcement agents have indicated that illegal harvest of ducks is a significant part of total harvest and may be a significant contributor to waterfowl declines.

The Izaak Walton League assembled in convention in Green Bay, Wisconsin, July 27-29, 1988 calls for:

1. Greatly restricting the harvest through shortening the length of the 1988-89 duck season and reducing the bag limit of birds, or entirely closing the season where necessary, to protect the breeding duck populations.

2. Increasing the enforcement budget and activity within the U.S. Fish and Wildlife Service, and stiffening court penalties for waterfowl violations, including restitution.

3. Acquiring accurate data on the extent of the illegal kill throughout the United States, Canada, and Mexico.

4. Accelerating habitat acquisition, including adequate upland cover and nesting habitat.

5. Providing U.S. federal funding for the North American Waterfowl Management Plan at a rate commensurate with the $1.5 billion overall level and realistic expectations of private sector and Canadian funding.

6. Beginning to develop a hunter education requirement for all waterfowl hunters. This should be an addition to the states' existing programs for youth and general hunters.

STATEMENT OF MR. FRED PARNELL
FROM BATON ROUGE, LOUISIANA
September 22, 1988

Thank you Mr. Chairman. My name is Fred Parnell. I am a businessman, hunter, fisherman and a life-long resident of Louisiana. I do not hesitate to tell you my first love is duck hunting.

I am sure you gentlemen have heard about or read a number of recent media stories concerning Louisiana's bad reputation regarding waterfowl hunting regulations. I understand that is one of the reasons we are here today. I am not a waterfowl biologist or technical expert, but I wish to make the following comments as a concerned Louisiana duck hunter.

I have hunted for over 52 years in Louisiana and in more places across our state than most duck hunters; swamp lakes, bean fields, rice fields and along most of the coastal marshes. I have had a camp on Pecan Island in Southwest Louisiana for more than 34 years. I wouldn't trade my opportunities or my results with any other duck hunter I know.

I have been in the hunting, fishing, boat and motor business for over 44 years. I own and operate a wide assortment of equipment including mud boats, air boats, go-devils and I have close contact year round with all types of duck hunters across North America. What you have heard and read about the gross overkill violations in Louisiana are isolated and infrequent in my opinion. I know these sorry examples of behavior in the field do not represent the average hunter in Louisiana and certainly not the average situation in our state.

Dave Hall and other FWS agents in Louisiana are very good and very dedicated officers. They always do their homework and concentrate on the serious problem areas with good results. His men, along with state agents, have checked me several times while duck hunting in different places. In recent years, the last 5 or so, I believe many responsible hunters have recognized that some ducks were becoming less plentiful and are in trouble due to drought and loss of wetland habitat. We also realize that if violations occur at unacceptable levels, we are hurting ourselves and threatening the opportunities of future generations of duck hunters. I believe I speak for the great majority of our state's hunters in stating that we do not want or condone the type of activity you have read about. Most of our hunters as elsewhere across the country support good, tough law enforcement and appreciate the efforts of these agents, both state and federal. Louisiana sportsmen have always contributed heavily to Ducks Unlimited and proportionately we have more Life Sponsors in Ducks Unlimited than any other state. We certainly hope there is continued support of their fine wetlands conservation efforts on behalf of our ducks.

I believe law enforcement and ethical hunting behavior are not only a Louisiana problem, but a North American problem. I have hunted in many states and throughout Canada -- James Bay, Hudson Bay, 200 miles north of Winnipeg and many times in Saskatchewan. I have hunted ducks extensively in Mexico and on the Yucatan Peninsula for 30 years. Unfortunately, I have seen violations almost everywhere. For years I think it has been socially accepted, a status

symbol, bragging point, for some hunters to take ducks in disregard of daily limits. My old friend, Perry White, now retired as head federal agent in Louisiana, told a congressional hearing 20 years ago that in working all over the United States he believed 80% of hunters would violate if they thought they could get away with it.

It is my firm belief that name calling or pointing fingers will not help the current situation. I was recently misquoted by a prominent outdoor writer for the Chicago Tribune as saying that I readily admitted to gruesome overkill in Louisiana. I could counter with equal accusations, with proof about Illinois and many other locations where I have hunted waterfowl. But, we don't need this blaming each other; but rather we need to work together. We need improved education and awareness among current hunters and especially our young future hunters. Most importantly, we need to work much harder at saving the habitat, our wetlands, for waterfowl. I believe that is the real crisis at hand. Support for wetlands conservation programs such as Ducks Unlimited and the North American Waterfowl Management Plan must continue and be accelerated if there is to be hope for the future.

It is also important to have reasonable and enforceable hunting regulations so that landowners will not be discouraged to improve and protect wetlands on private hunting areas. For example, I was bass fishing this past Labor Day in southwest Louisiana at a friends coastal marsh hunting area. He has spent over $500,000 in three years improving the habitat for wildlife, especially waterfowl. With today's regulations, I wonder if he would have invested so heavily in this project. Right now there are blue-winged teal all over it -- wall to wall. When the regular duck season starts in Louisiana, November 19, most will have gone south to Mexico or South America. Dick Yancey, my good friend of 40 years, is a nationally respected management authority on ducks. He states that 50% or more of blue-winged teal die of natural mortality each year. The elimination of September teal hunting was extremely disappointing and unjustified in my judgment.

I also think that the sunrise shooting time is wrong. What difference does it make when you shoot if you can only take three ducks? Pre-sunrise is the best time for taking wood ducks and green-winged teal which are not in short supply. I do not think this regulation will be popular nor easily enforced. There will be a lot of potential for conflict between hunters and enforcement agents. Under these circumstances not much positive for waterfowl is likely to be accomplished.

I believe it would be very unfair to penalize a state for having abundant, quality wetlands and lots of ducks like we do in Louisiana. In your state if you don't have ducks like we don't have Canada Geese, come down and hunt with us. You are welcome, but expect to obey the regulations. We have good, dedicated wildlife officials and agents at both the state and federal level in Louisiana. I know -- I have been checked many times in many places. Our state Department of Wildlife and Fisheries has pledged to mount a strong education and law enforcement program especially for migratory birds. The responsible sportsmen of Louisiana will support this effort.

Gentlemen, we would all agree there is room for improvement in hunting ethics throughout North America. Yes, it used to be socially accepted almost everywhere to disregard established hunting regulations. I strongly believe,

however, attitudes are changing and that it is no longer socially accepted among a growing majority of our hunters to do so. My hope is that the law enforcement issues, while very important, will not overshadow the sad fact that our continent's wetlands are being destroyed. This hearing can help maintain a cooperative effort to resolve the major problems facing ducks today and our opportunity to enjoy the sport of legal hunting in the future.

TESTIMONY OF RONALD E. LAMBERTSON, ASSISTANT DIRECTOR FOR FISH AND WILDLIFE ENHANCEMENT, U. S. FISH AND WILDLIFE SERVICE, DEPARTMENT OF THE INTERIOR, BEFORE THE SENATE COMMITTEE ON AGRICULTURE, SUBCOMMITTEE ON CONSERVATION AND FORESTRY, CONCERNING THE 1985 FOOD SECURITY ACT

MARCH 24, 1988

Mr. Chairman, I am pleased to be here today to discuss the progress that has been made in implementing the conservation provisions of the Food Security Act and to address particular concerns of the committee regarding certain types of our Nation's wetlands.

I firmly believe that the deliberations of this committee and the future success or failure of the wetland conservation provisions of the Food Security Act will have a direct effect on the future of the North American waterfowl population, as well as other fish and wildlife resources.

The continental waterfowl populations are directly dependent on conservation of their wetland habitats. Historically, about 87 percent of wetland losses in the United States have resulted from agricultural activities, and approximately 90 percent of the Nation's wetlands are in private ownership. Clearly, the prospective benefits for waterfowl through the wetland conservation provisions of the Food Security Act are enormous.

The Service has worked long and hard with the Department of Agriculture in helping them to develop the regulations to implement the conservation provision of the Food Security Act. The Service has been most active in the wetlands conservation provisions, commonly known as "Swampbuster," because of the tremendous potential to assist in halting the declining trends of waterfowl populations in North America.

Mr. Chairman, your invitation requested that we address certain issues. I will first discuss our current consultation process with the Department of Agriculture.

The function of the Service in implementing the Food Security Act, as provided by Congress, is to assist in a consultative role. The Soil Conservation Service is required to consult with the Service on exemptions to Swampbuster and on matters relating to wetland identification. The Agricultural Stabilization and Conservation Service consults with the Service on all determinations for conversions "commenced" prior to the Act or caused by a "third party."

The Service has been involved in developing necessary information and in training with the Soil Conservation

Service, primarily at the State level, but has had very little involvement in actual on-the-ground wetlands determinations, appeals, or routine compliance spot-checks. In Montana and North Dakota, for example, Service personnel have visited nearly every local Soil Conservation Service office offering assistance in wetland identification matters, but has never been asked to participate in a single field determination or wetland identification question. It is our understanding that due to workload constraints, the Soil Conservation Service conducts a majority of wetland determinations in the office without any field work. In Minnesota, for example, over 90 percent of the determinations are made in the office.

Service consultation with the Agricultural Stabilization and Conservation Service has been generally at the County Committee level. Typically, the Service is notified from two days to two weeks in advance of County Committee meetings to make "commenced" determinations. In some cases, consultation notification to the Service occurs after the County Committee has made a decision but before that decision has been conveyed to the farmer. The Service usually provides written comments to the County Committee and in some cases attends the meeting at which the determination is being considered. In nearly every case, consultation is concluded with this written or oral comment by the Service.

The Service has reported numerous instances of apparent wetland conversions -- 200-250 in North and South Dakota and 100 in Minnesota, for example -- to the local Agricultural Stabilization and Conservation Service office. Some offices have welcomed this assistance, finding it useful to resolve potential conflicts with producers at an early stage.

At the National level the Service has sought to be as active as possible in assisting the Department of Agriculture in developing regulations and procedures, as well as and resolving policy and procedural problems that arise between our agencies.

You also asked us to suggest ways in which consultation could be improved. These would include:

- Involve Service personnel in the field to assist with wetland determinations, appeals of wetland determinations, and compliance spot-checks of determinations.

- Provide enough advance notice for the Service to be able to provide meaningful input on "commenced" and "third party" determinations

- Establish a simple and rapid mechanism for dialogue and problem resolution between the Service and the Department of Agriculture in those individual cases where the consultation process results in differences of opinion on wetland identification and Swampbuster exemption determinations.

- Involve the Service on a continuing basis at the National level to assist the Department of Agriculture in rule making, developing agency procedures, and in deliberations leading to policy interpretations on implementation of the conservation provisions.

Another area you asked us to address is the effectiveness of Swampbuster. The Service has no firm evidence to indicate to what extent the provisions have reduced the loss of wetlands due to agricultural activities on a National level. Service personnel continue to observe wetland conversions for agricultural purposes. For example, drainage rates in North Dakota and Minnesota in 1987 appeared to be the highest in ten years. Swampbuster may have stimulated drainage rather than slowed it. Swampbuster does not prohibit wetland conversion per se, and some producers have publicly stated that wetland drainage should be completed now before something happens that does restrict drainage. In these situations, there is no wetland conservation benefit arising out of Swampbuster. The lack of a compliance record for Swampbuster supports the notion that wetland benefits have yet to be realized.

You specifically asked me to explain why "type 1" wetlands are important to wildlife and to describe the impacts if these wetlands were to be exempted from Swampbuster. The term "type 1" wetlands is taken from Circular 39, a Service publication issued in 1954. Unfortunately, there is quite a bit of confusion with the popular use of the term "type 1" wetlands today. Circular 39 is an obsolete wetland classification system which the Service stopped using in 1979.

There is not a consistent equivalent for "type 1" wetlands in current classification systems. A narrow technical definition would restrict "type 1" to those that are only temporarily flooded.

Popular usage of the term "type 1" in relation to recent discussions on Swampbuster is broader than the strict technical definition and includes so-called "nuisance" spots in agricultural fields, such as ephemeral wetlands, temporarily flooded wetlands, saturated soils, and many seasonally flooded wetlands. Because of the technical difficulty of defining "type 1" wetlands in current wetland classification terms, today I will use a range of values

which represent on one hand, the most narrow, highly technical definition and on the other hand, a more general, popular concept of "type 1" wetlands.

To illustrate the difficulty in understanding what we all think a "type 1" wetland is, one Service wetlands expert estimated that trained wetland specialists in the field typically identify about 20 percent more wetlands as "type 1" than strictly meet the technical definition, and well-informed persons typically include 80 percent more wetlands than strictly meet the definition. The potential margin for error in using "type 1" wetlands for administrative or regulatory purposes is very large.

"Type 1" wetlands are found throughout the Nation, often in association with other more permanently flooded wetlands. In the prairie pothole region of the Dakotas and Minnesota, "type 1" wetlands are an integral component of what are termed wetland complexes -- agregations of various wetland types and associated upland habitats, providing a diversity of wildlife habitat. "Type 1" wetlands are relatively small generally ranging from less than 0.1 acre to over 10 acres in size. Most are a quarter acre or less in size.

Between 18-70 percent of all wetland acreage in the prairie pothole region is at stake. Between 1 million and 3.7 million wetland acres are involved. The wildlife values that would be associated with loss of even the low end of this range are staggering.

For example, "type 1" wetlands support between 15-56 percent of the mallard breeding population and between 20-63 percent of the pintail breeding popultion. Loss of breeding habitat will translate into a direct loss of production for these populations. The Service estimates a total breeding population of about 6.6 million ducks in the prairie pothole region of North and South Dakota, Minnesota and Montana. If the remaining "type 1" wetlands disappear, it is estimated that 20-60 percent reduction (1.3 - 4 million ducks) in this population will occur. In terms of the fall flight, this translates into a reduction of from 2.6 - 8 million ducks heading south each fall from the prairie pothole region of the United States.

Waterfowl migrating north in early spring use "type 1" wetlands filled with snow-melt water and maintained by frozen subsoils. Deeper water areas are still ice-covered during this period. These wetlands provide food to sustain northward migrating waterfowl and maintain fat reserves required for successful reproduction. The prairie potholes of the United States are staging areas and important stopover points for transient birds migrating into Canada. The overall fitness of Canadian waterfowl is dependent on feeding conditions along the migratory flyway.

Ducks are highly territorial during the breeding season requiring many separated territories. Many "type 1" wetlands provide much more breeding potential than an equivalent acreage of larger wetlands. There are over 167,000 acres of wetlands less than one-quarter acre in size, and almost all of these are "type 1" wetlands. This translates into a minimum of 670,000 potential breeding sites. Laying females satisfy protein demands by consuming invertebrates that are more abundant and more easily obtained in "type 1" wetlands than in deeper, more permanent wetlands. An abundance of these wetlands ensures an adequate food supply for ducklings. In terms of waterfowl biology, it is fair to say that one hundred one-acre wetlands are many times more valuable than a single 100-acre wetland.

The North American Waterfowl Management Plan, agreed to by the United States and Canada in 1986, recognizes the conservation of habitat is the pressing imperative if waterfowl are to be maintained. It concludes that "...All other efforts will be in vain if the ongoing trend of habitat degradation is not reversed..." If "type 1" wetlands continue to disappear, there is little doubt that it will not be possible to maintain even the current, depressed populations of waterfowl on the continent.

Mr. Chairman, the Service urges you to resist an exemption of either "type 1" or "small" wetlands from Swampbuster. Wildlife values of the Nation's wetlands, particularly waterfowl production, would be seriously reduced. The administrative burden of regulatory definition and field identification of a class of wetlands for exemption from Swampbuster would be overwhelming and would compound existing confusion with the program.

Many wetlands are already exempted from Swampbuster under the regulations, including: wetlands for which conversion commenced prior to December 23, 1985; artificial wetlands; wet areas created by a water delivery system or irrigation system; wetlands which can be farmed under natural conditions; conversions that would have only a minimal impact on the hydrological and biological aspects of wetlands; and wetlands converted by the actions of a third party.

The Service sincerely believes that there is little room for additional compromise in Swampbuster if we are to retain a workable wetland conservation provision and provide for a viable North American waterfowl population.

Finally, I would like to discuss some recommendations to improve Swampbuster implementation, on which you also asked our comments.

First, during the period of development of the final regulations, much confusion and misunderstanding has developed. For example, we understand that a subcommittee of the National Governors Association recently adopted a policy that the wetlands conservation provision should under no circumstances restrict farmers from maintaining historic drains. According to the final regulations, this is not an issue. Existing active drainage structures can be maintained,provided that they are not made deeper or wider and that no additional land is brought into production. We fully support this interpretation. Continuing discussions on potential changes to Swampbuster over a two-year period have added to the confusion as to what the regulations do and do not say. This must be overcome if Swampbuster is to work.

Second, Swampbuster should be implemented without further delay. Wetland determinations must be made on every farm. Farmers are confused and worried because determinations have not been made on their farms or because Swampbuster compliance procedures are not clearly understood. All of us charged to implement Swampbuster need to roll up our sleeves, carry this program to the farm, and explain to the farmer face-to-face where the wetlands are and which ditches can be maintained. Swampbuster cannot be administered successfully without intensive field work.

All the evidence available to the Service indicates that, if anything, implementation of the wetland conservation provision needs to be strengthened, rather than weakened, if it is to have a positive effect on conservation of wetland resources. Straightforward implementation will also help clear up the confusion and let farmers know where they stand.

Thank you for this opportunity to address the concerns of this Committee. I will be happy to address any questions you or members of the Committee may have.

Statement of

Michael J. Bean
Environmental Defense Fund

before the

Subcommittee on Fish and Wildlife
Conservation and the Environment

of the

House Committee on Merchant Marine
and Fisheries

concerning

The Decline of Waterfowl in the Mississippi Flyway and Elsewhere in North America

September 22, 1988

The Environmental Defense Fund submits this testimony concerning the decline of waterfowl in the Mississippi flyway and elsewhere in North America. That decline is deeply disturbing because of the value of waterfowl to millions of Americans who pursue recreational enjoyment of this important resource. The current decline is very likely owing to a variety of contributing causes. These may include cyclical drought, agricultural conversion of wetlands, illegal hunting, and other factors. At the same time, there is increasing evidence that there is more than just these relatively short-term phenomena at work, and that the problems currently afflicting waterfowl may be significantly compounded in coming decades. This testimony attempts to take a broader look at the long-term threats facing waterfowl and makes some very preliminary suggestions as to how waterfowl conservation priorities might need to be reoriented in order to serve waterfowl needs in the coming century.

The summer of 1988 offered a gloomy picture of the potential future for North American waterfowl. Intense heat seared the North American continent virtually all summer long, while drought parched the wheat and corn belts. Pothole wetlands in the northern prairie and Canadian parkland regions, traditionally the most productive breeding areas for the continent's ducks, went dry. Even Saskatchewan's Old Wives Lake went dry for the first time since 1937. Ducks in search of a place to raise the next generation were forced to fly farther north, where they crowded

into less productive areas. The autumn duck population fell to 66 million, a more than ten percent decline from the previous year and the second lowest level ever recorded.

Government officials responsible for managing waterfowl responded by restricting duck hunting. The new restrictions, they said, were necessary until the current crisis was over, until things returned to "normal." A U.S. Fish and Wildlife Service press release captured the outlook well when it quoted one of its officials beginning his remarks by saying "when the water comes back -- and it <u>will</u> come back .... "

There will undoubtedly be some cooler and wetter years ahead, but it now seems equally certain that the unusual weather events of 1988 will no longer be considered unusual by the middle of the twenty-first century. In short, returning to "normal" is a fanciful idea, for profound changes in our -- indeed, the earth's -- climate seem inevitable over the next half century. These changes are likely to have substantial impacts on North America's waterfowl.

The cause of the major climate changes that lie ahead is what has become popularly known as the "greenhouse effect." The burning of coal and other fossil fuels is altering the chemical balance of the atmosphere by increasing the concentration of carbon dioxide. Already, levels of atmospheric carbon dioxide

are 25 percent higher than before the Industrial Revolution. The significance of this is that carbon dioxide and certain other gases (among them chlorofluorocarbons, which also destroy ozone in the upper atmosphere) act like the glass of a greenhouse; they let light from the sun through to the earth's surface, but they trap the radiant energy that would otherwise be reflected back into space.

The most immediate consequence of the greenhouse effect is a warming of the earth's atmosphere. By the middle of the next century, average global temperatures are expected to be three to nine degrees Fahrenheit warmer than at present, a change larger than any that has been experienced since the Ice Age. A focus on average temperatures may be misleading, however, for the models from which these predictions are made show the greatest changes occurring in the higher latitudes and much smaller changes near the Equator. These temperature changes, in turn, are likely to contribute to significantly altered precipitation patterns. Reduced precipitation and much drier summers are expected in continental interior areas. Extreme weather events, such as intense heat and prolonged drought, are likely to become more frequent. In short, the prairie pothole region of the north-central United States and the Canadian parkland region above it are likely to be both hotter and drier than in the past, far more like 1988 than the "normal" conditions that preceded it. These areas, traditionally among the most important for producing

many of our most abundant ducks, are likely to become a lot less productive.

Ducks will discover that it is not just their breeding grounds that have changed as a result of the greenhouse effect. Increased global temperatures are expected to bring about dramatic sea level rise throughout the world. This will occur as a result of the melting of polar ice caps and the thermal expansion of warmer sea water. Rising seas will inundate many coastal marshes now protected as waterfowl refuges in the National Wildlife Refuge System. Others will be dramatically transformed as a result of the intrusion of salt water into fresh or brackish water systems. Evidence that this is already occurring can be seen at Blackwater National Wildlife Refuge on Chesapeake Bay, where rising water levels have eliminated about a third of the Refuge's marshland over the past forty years. Some marshes will be able to shift inland in the face of rising seas; others will be blocked by cities and other human developments. Even those that are able to retreat inland will likely no longer be within the boundaries of protected refuges.

These are just some of the direct effects of climate change on our waterfowl. Significant as they are likely to be, they may be dwarfed by other, indirect effects stemming from human response to a changing climate. The one area of human activity that has generally had the greatest impact on waterfowl is

agriculture, particularly through the conversion of potholes and other wetland habitats into dry fields for agricultural production. How is human agriculture likely to respond to the changes in climate now being forecast, and how will that response affect waterfowl?

In general, agricultural regions, like natural vegetational communities, can be expected to shift northward as a result of a warming climate. At least a crude effort at quantifying that shift can be made by the use of economic models that link information on rainfall and other climatic variables with crop production. Those models suggest that in many areas of the country, including the prairie pothole region, more land will be brought under agricultural production as a result of foreseeable climate changes and that more irrigation water will be used to grow crops on those lands to compensate for less dependable rainfall. In short, prime waterfowl breeding areas will be stressed not just by heat and drought, but by increasing pressures for agricultural conversion and by increasing competition for scarce water supplies. In places where ponds remain, the economic incentives to plow or graze right down to the water's edge, thus destroying potential nesting areas and needed cover, will magnify the adverse impact beyond what the loss of surface water itself causes.

Other consequences will cascade down from the above changes. More acreage devoted to agricultural production will mean more pesticides being used. More irrigation demand will mean not just less water available for ducks, but also potentially more leaching of salts and dangerous trace elements like selenium in irrigation return flows, with the result that waterfowl poisoning incidents like that which occurred at Kesterson National Wildlife Refuge in California a few years ago may be more frequent. Recent surveys of western National Wildlife Refuges indicate that the toxic contamination problem is more widespread than indicated by Kesterson alone.

Climate change could also disrupt waterfowl habits in yet another way. Ducks and other migratory birds apparently time their migratory cycles according to the length of daylight. At present, this means that ducks arrive on their breeding grounds and begin rearing their young when the insects and young plant shoots upon which they typically feed are readily available. In a world transformed by climate change, however, the timing of plant growth and insect emergence in relation to length of daylight may be greatly altered. As a result, the synchrony of brood rearing with food abundance may be broken.

There is very near consensus now that some amount of climate change is inevitable; past and ongoing emissions of greenhouse gases have already committed us to that for the next several

decades at least. The only options for us now are to slow the rate of change and to anticipate and plan for change. Slowing the rate of change will require more efficient utilization of energy, making the transition to forms of energy other than fossil fuels, and stemming the loss of forests throughout the world, because of their value in fixing atmospheric carbon. These are critical global and societal steps, though not ones that persons concerned about waterfowl have heretofore regarded with much interest. As waterfowl enthusiasts recognize their stake in the climate change debate, they will have to take a more active role in that debate.

What about anticipating and planning for climate change? There is a tendency, perhaps, for most of us to regard a problem whose serious consequences may yet be half a century away as a problem that can be dealt with at a later time. Particularly is this so in the field of wildlife conservation, where responding to immediate crises makes the contemplation of future problems a seeming diversion. But waterfowl may well be an exception. Our country's commitment to waterfowl conservation is already more than half a century old. Our investment in waterfowl conservation is bigger, and goes back farther, than our investment in the conservation of any other group of species. Not taking steps now to anticipate and plan for the changed circumstances that will confront waterfowl a half century hence puts that investment in jeopardy.

The dry, parched landscape of Fallon National Wildlife Refuge in Nevada is a silent reminder of the pitfalls of failing to perceive and respond to future waterfowl needs. Once a lush wetland complex in the middle of the Nevada desert, Fallon supported abundant waterfowl and other wildlife. But when Fallon was established, no legally protected water rights were acquired for it. As a result, the waters that fed Fallon's wetlands were diverted by irrigators and other upstream water users. Eventually, no water at all reached Fallon; its wetlands disappeared and so too the waterfowl that once used them. Fallon's legal designation as a National Wildlife Refuge was eventually revoked; its practical value as a refuge for wildlife had ended years earlier.

Few National Wildlife Refuges in the western United States have legally protected water rights. Yet, climate change is expected to bring both reduced rainfall and increased irrigation water demand. As a result, the emphasis, at least in the West, of waterfowl conservation efforts must increasingly shift toward the acquisition of water rights. Elsewhere, the emerging picture of our future climate and its consequences suggests still other redirections of waterfowl conservation efforts. To increase the likelihood that coastal refuges will persist after a climate change-induced rise in sea level, waterfowl managers ought to be acquiring undeveloped upland areas adjacent to those refuges so that the marsh habitats can move inland with the rising seas.

Acquisition in the breeding areas may need to focus on the more northerly, traditionally less productive, areas into which ducks were displaced during the drought of 1988. In many instances, the areas that would be acquired with climate change considerations in mind may not be particularly valuable for waterfowl today. But if waterfowl is to continue to be one of our most abundant and valuable wildlife resources, today's conservation efforts must anticipate waterfowl's dramatically changed needs in the twenty-first century. Most importantly, people concerned about the status of waterfowl in the next century need to recognize their stake in the climate change problem and play an active role in helping to solve it.

Testimony of the Waterfowl Habitat Alliance of Texas

Submitted to the House Subcommittee on Fisheries and Wildlife Conservation and the Environment, Sept. 22, 1988, Washington, DC.

Our organization of 2,000 dedicated conservationists is well aware certain species of ducks need special protection this year. We are particularly aware of the loss of habitat, in both the nesting areas and in the wintering areas, where the birds spend half their lives and where we work exclusively.

We support regulations which protect the ducks needing protection. We support regulations which protect the ducks' habitat. Sadly, the federal regulations this year do neither. In our opinion, this year's federal regulations actually harm ducks needing protection and contribute to the decline of habitat.

For example, the final regulations allow hunters in Texas to take — each day — a pintail hen, a mallard hen and a mottled duck hen. That is tragic. Each of those species needs MORE protection. Texas proposed those birds be 100-point birds, limiting the take to one per day. In Texas and many other states, there was good reason to consider closing the season on pintails completely. The point system would have helped these species. The federal regulations do not help them.

In contrast, the early teal season was wiped out in many states although green-winged and blue-winged teal populations are up this year. In fact, the green-winged teal population is 46 per cent above the 1955-87 average, according to the U.S. Fish & Wildlife Service's own figures. Since male teal head south before the females, it would have been possible to have a short early teal season without harming the species. Instead, we had none.

Changing the start of shooting hours to sunrise makes sense for ducks. But the regulations change it for ALL waterfowl. Does the U.S. Fish & Wildlife Service really believe hunters can't tell a flying goose from a duck 30 minutes before sunrise, the old beginning time? Does the service know that, in much of Texas, teal move early in the morning and that changing the shooting time will put more pressure on pintails, mallards and mottled ducks?

We recognize that most ducks and their nesting areas and wintering areas are in bad shape. USFWS Director Frank Dunkle faced a difficult decision. It was made more difficult by the fact he made it alone, overriding the recommendations and experience of the flyway councils and state and federal biologists.

That decision would be more palatable and more easily enforced if it made any sense. Despite all the talk about drought, duck numbers, etc., the regulations do not protect the resource consistently. There seems to be only one theme found throughout the regulations: Discourage waterfowl hunters.

That is no solution. It takes ducks to lay duck eggs, but it takes hunters to lay golden eggs. We must have both.

The regulations consistently overlook the connection between habitat and hunters.

It is well-known that hunters fund wildlife projects and protection through purchasing licenses, duck stamps, guns and other hunting gear, and by supporting conservation organizations such as ours. Less recognized is the fact that hunters and landowners who lease to hunters spend huge sums on preserving and enhancing waterfowl habitat in states where the birds winter. Landowners who expect to profit from waterfowl also adjust their farming practices to accommodate the birds.

Discouraging hunters, as the federal regulations do consistently, will lower the waterfowl harvest this season, as is desired. It also will cause less water to be pumped, less habitat to be saved, more habitat to be drained and plowed next year.

The ultimate effect of discouraging hunters will reduce duck populations far more than reasonable hunting pressure would have.

Please understand: The Waterfowl Habitat Alliance of Texas is NOT saying we ought to be able to kill ducks because we pay good money to hunt them. Instead, we are saying there will be no ducks to hunt if hunters are not willing to pay good money to hunt them.

In the fall edition of our magazine, we told our members, "This is the year to take your camera to the blind, to let every hen go, to pay for pumping water you won't hunt over as much as usual."

We conservationists are not miners, extracting ore and then moving on. We are key elements in managing a renewable resource. That resource is supported by a complex system of public and private land, public and private money, public and private conservation education efforts. The federal government and the states do not have the will, money or even the authority to replace the contributions from the private sector.

However, it is obvious the U.S. Fish & Wildlife Service has the ability to discourage contributions from the private sector.

In the past, we conservationists have overcome droughts that reduced wildlife populations and hunting opportunity. Now we face natural disaster, aggravated by an unnecessary, man-made disaster.

Ladies and gentlemen of the subcommittee, please do what you can to ensure waterfowl and waterfowl habitat are never again damaged by a man-made disaster like this year's regulations.

Thank you.

Testimony of the Waterfowl Habitat Alliance of Texas

Submitted to the House Subcommittee on Fisheries and Wildlife Conservation and the Environment, Sept. 22, 1988, Washington, DC.

Our organization of 2,000 dedicated conservationists is well aware certain species of ducks need special protection this year. We are particularly aware of the loss of habitat, in both the nesting areas and in the wintering areas, where the birds spend half their lives and where we work exclusively.

We support regulations which protect the ducks needing protection. We support regulations which protect the ducks' habitat. Sadly, the federal regulations this year do neither. In our opinion, this year's federal regulations actually harm ducks needing protection and contribute to the decline of habitat.

For example, the final regulations allow hunters in Texas to take — each day — a pintail hen, a mallard hen and a mottled duck hen. That is tragic. Each of those species needs MORE protection. Texas proposed those birds be 100-point birds, limiting the take to one per day. In Texas and many other states, there was good reason to consider closing the season on pintails completely. The point system would have helped these species. The federal regulations do not help them.

In contrast, the early teal season was wiped out in many states although green-winged and blue-winged teal populations are up this year. In fact, the green-winged teal population is 46 per cent above the 1955-87 average, according to the U.S. Fish & Wildlife Service's own figures. Since male teal head south before the females, it would have been possible to have a short early teal season without harming the species. Instead, we had none.

Changing the start of shooting hours to sunrise makes sense for ducks. But the regulations change it for ALL waterfowl. Does the U.S. Fish & Wildlife Service really believe hunters can't tell a flying goose from a duck 30 minutes before sunrise, the old beginning time? Does the service know that, in much of Texas, teal move early in the morning and that changing the shooting time will put more pressure on pintails, mallards and mottled ducks?

We recognize that most ducks and their nesting areas and wintering areas are in bad shape. USFWS Director Frank Dunkle faced a difficult decision. It was made more difficult by the fact he made it alone, overriding the recommendations and experience of the flyway councils and state and federal biologists.

That decision would be more palatable and more easily enforced if it made any sense. Despite all the talk about drought, duck numbers, etc., the regulations do not protect the resource consistently. There seems to be only one theme found throughout the regulations: Discourage waterfowl hunters.

That is no solution. It takes ducks to lay duck eggs, but it takes hunters to lay golden eggs. We must have both.

The regulations consistently overlook the connection between habitat and hunters.

It is well-known that hunters fund wildlife projects and protection through purchasing licenses, duck stamps, guns and other hunting gear, and by supporting conservation organizations such as ours. Less recognized is the fact that hunters and landowners who lease to hunters spend huge sums on preserving and enhancing waterfowl habitat in states where the birds winter. Landowners who expect to profit from waterfowl also adjust their farming practices to accommodate the birds.

Discouraging hunters, as the federal regulations do consistently, will lower the waterfowl harvest this season, as is desired. It also will cause less water to be pumped, less habitat to be saved, more habitat to be drained and plowed next year.

The ultimate effect of discouraging hunters will reduce duck populations far more than reasonable hunting pressure would have.

Please understand: The Waterfowl Habitat Alliance of Texas is NOT saying we ought to be able to kill ducks because we pay good money to hunt them. Instead, we are saying there will be no ducks to hunt if hunters are not willing to pay good money to hunt them.

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Ladies and gentlemen of the subcommittee, please do what you can to ensure waterfowl and waterfowl habitat are never again damaged by a man-made disaster like this year's regulations.

Thank you.

Defenders
OF WILDLIFE

Statement of

M. Rupert Cutler, President
Defenders of Wildlife

before the
Subcommittee on Fish and Wildlife Conservation
and the Environment

of the
House Committee on Merchant Marine and Fisheries

concerning

The Decline of Waterfowl Populations
in the Mississippi Flyway and Elsewhere
in North America

October 19, 1988

1244 NINETEENTH STREET, NW • WASHINGTON, DC 20036 • (202) 659-9510

Defenders of Wildlife (Defenders) thanks the Members of this Subcommittee for the opportunity to present our views on migratory waterfowl management. Since 1975 we have maintained a continuing interest in migratory bird regulations, including concerns for season dates, shooting hours, and bag limits on certain species. We have testified frequently at the U.S. Fish and Wildlife Service (FWS) hearings on early and late season migratory bird hunting regulations.

Although the current administration's willingness to provide more "ducks and bucks" has often come at the expense of so-called nongame species, problems with waterfowl management go back far earlier than 1980. However, steps which could have been taken by this administration to partially alleviate our current waterfowl crisis were not undertaken, and their impacts may have had a cumulative effect on waterfowl status today.

Since 1980, Defenders has raised questions about the stabilized regulations program (where the FWS set high levels of take for waterfowl over a five-year period in attempts to determine the significance of non-hunting mortality, the relationship between hunting mortality and other mortality factors, and the role of recruitment as it impacts waterfowl population size). We believed there were simply too many variables affecting the productivity of waterfowl populations for such a program to yield meaningful data. In testimony presented in 1985, we strongly opposed continuation of the program, and instead recommended that harvest regulations be based on annual assessment of all hunted waterfowl species. The fall flight of 62 million birds in 1985 was the lowest on record, approached only by the predicted fall flight of 66 million birds this year. We then raised the question that declines occurring during the years of stabilized regulations could, in part, be associated with liberal harvest levels maintained in the interest of stabilized regulations.

Since 1975, Defenders has expressed concerns about pre-dawn hunting hours, indicating that they not only run counter to sound resource management and confound misidentification, but probably substantially increase the problem of crippling loss, in 1986 estimated at two birds crippled for every three killed--some 12 million ducks and two million geese fatally crippled annually. Not until the emergency this year has the Fish and Wildlife Service finally decided to implement sunrise shooting hours for ducks and geese--a day late and a dollar short, in our opinion.

We have also raised questions in the past on bag limits assigned to species such as common snipe, sora and Virginia rails, clapper and king rails, gallinules, coots, mergansers, and sea ducks, based on little or no scientific data other than wing counts for some species. We particularly questioned the management programs for sea ducks, mergansers, and teal (early season). Because of habitat loss, acid precipitation impacts, toxic chemi-

cals, pesticides, and other environmental problems, the FWS needed to more carefully determine population trends, productivity, and other data necessary to realistically evaluate the ability of the aforementioned species to tolerate hunting pressure at the limits set for these species in the 1980's.

The black duck, a victim of habitat loss and hybridization with the mallard, has continued to dwindle in numbers. We supported a decrease in the allowable harvest of this species, preferably a closed season in certain critical areas, in 1984. With only limited success in this effort, we recommended that FWS take a more aggressive stand to protect this species in 1986, particularly in light of the apparent failure of the 25% reduction in harvest for the then previous three years. The reduction had apparently failed as there was neither a statistically significant reduction in harvest rates for the different area populations, nor was the overall population appreciably increased in 1986 over 1985 population levels. In certain population areas where black ducks failed to respond to harvest reductions, we recommended further restrictive regulations or even closure of hunting on those populations.

With this situation in mind, Defenders wonders if the duck season length reduction of 25 percent for the 1988-89 waterfowl season will be sufficient. With the black duck case in mind and other data available, we think not. Perhaps a one-third season length reduction (with a resultant overall projected 33 percent reduction in harvest) is more realistic. With too many hunters and not enough ducks (reference George Reiger's article in the June 1988, Outdoors Unlimited, p.6), we are concerned that states like North Carolina are encouraging waterfowl hunters to take more sea ducks and geese--black scoters, old squaws, eiders, and brants.

Defenders is also concerned that the FWS has approved the continuation of the experimental tundra swan season in North Carolina and will offer new experimental seasons in Virginia and New Jersey. Many of our members are quite concerned about this move. Defenders opposed the experimental swan season in North Carolina when it first began. The hunt was proposed by the North Carolina Wildlife Resources Commission as a means of reducing purported swan depredation on agricultural fields and seeded oyster beds, as well as providing swan permit holders additional hunting opportunities. We have not argued that the swan populations have increased significantly since 1950, nor do we disagree that tundra swans have emigrated from Maryland to North Carolina because vegetation in the Chesapeake Bay has recently been severely depleted. We do, however, question the rationale for conducting the hunt as well as some of the arguments used to support it. The FWS has in the past attempted to justify the hunt by making such statements as, "Historically, whistling [tundra] swans were among those species of waterfowl highly prized by

hunters" (a situation very few waterfowl hunters would support). But the Service has also admitted that "Public opposition to the harvest of swans may be highly emotional at the onset of the proposed action. However, public sentiment should wane as swans increase their wariness and a sporting tradition becomes established." And yet the Service finally admits that "As a game bird, they evoke strong emotion. Those opposed to the hunting of swans feel that swans are too beautiful and symbolic to warrant hunting." Regardless of one's position, we feel it inappropriate for the FWS to promote the continuation of swan hunting, particularly in light of the overall waterfowl situation.

As data would indicate, the greenhouse effect may indeed be upon us in full force, with resultant changing weather patterns affecting much of our prairie pothole regions. Although the FWS restrictions may help reverse if not at least stabilize the current diminished waterfowl populations--assuming that the rains return--we feel the Service needs to take a more multifaceted approach to sound waterfowl management. This includes:

- setting equitable harvest levels;
- conducting further sound scientific research;
- fine-tuning population survey techniques, especially on breeding grounds;
- working to improve conditions in breeding, migratory, and overwintering habitats;
- supporting legislation to protect wetlands;
- better assessing waterfowl disease problems;
- diminishing efforts to control predators as a means of increasing waterfowl, trying techniques such as taste aversion instead;
- getting more funds for law enforcement; and
- working to better improve relations with the states and the general public.

Mr. Chairman, this concludes our comments. Thank you for the opportunity to provide this testimony.

CALIFORNIA WATERFOWL ASSOCIATION
1840 ROSIN COURT • SUITE 100 • SACRAMENTO, CA 95834 • (800)-424-DUCK • (916)-648-1406

September 20, 1988

The Honorable Gerry E. Studds, Chairman
Subcommittee on Fisheries and Wildlife
Committee on Merchant Marine and Fisheries
House Office Building
Washington, D.C. 20515

Dear Chairman Studds:

We have been advised that on September 22nd, your subcommittee will hold a hearing concerning the current status of waterfowl resources in North America. We also understand that the four issues to be discussed are:

1. The status of North American waterfowl populations.
2. The status of North American waterfowl habitat.
3. The illegal take of waterfowl.
4. The adequacy of current enforcement programs in controlling illegal take.

The Association would like to comment on points 1 and 2 and submits the following information for this purpose:

1. Status of North American Waterfowl Populations - enclosed is our letter of August 16, 1988, to Director Frank Dunkle together with the Association's position statement concerning Duck Hunting Regulations in the Pacific Flyway for 1988-89 and our letter of August 19, 1988 to Director Dunkle on the same subject.

2. Status of North American Waterfowl Habitat - enclosed is a copy of the Memorandum of Agreement covering the Central Valley Habitat Joint Venture. This joint venture is the California component of the Norther American Waterfowl Management Plan. The Joint Venture agreement outlines the habitat efforts necessary to meet the North American plans waterfowl objectives for California. The Implementation Plan is expected to completed by March 1, 1989.

We request that this letter and the attached documents be included as part of the record of testimony presented at your hearing.

If you or your committee staff would like to discuss any aspects of this testimony we would welcome the opportunity.

Very truly yours,

D. Chapin, Chairman
Resources Committee

DC/ms
Enclosures
cc: Subcommittee Members (w/enclosures)
Frank Dunkle

CALIFORNIA WATERFOWL ASSOCIATION
3840 ROSIN COURT • SUITE 100 • SACRAMENTO, CA 95834 • (800)-424-DUCK • (916)-648-1406

August 16, 1988

Mr. Frank Dunkle, Director
U.S. Fish and Wildlife Service
Washington, D.C. 20240

Dear Mr. Dunkle:

The California Waterfowl Association (CWA) appreciates the opportunity of commenting on the Final Supplemental EIS (SEIS 88): "Issuance of Annual Regulations Permitting the Sport Hunting of Migratory Birds". CWA favors hunting regulations that are biologically based on the abundance and distribution of waterfowl breeding populations which are relevant to California's harvest. We support attempts to simplify regulations so long as these regulations maximize hunting opportunity consistent with protecting and maintaining desired waterfowl populations and the wetlands upon which they depend.

In principle, CWA favors the use of stabilized regulations. However, we are concerned with several aspects of SEIS 88's treatment of this subject. These aspects are:

1. The failure of SEIS 88 to identify the appropriate frameworks necessary to achieve the desired stabilized level and the entities who will formulate and evaluate the resulting regulations.

2. The failure of SEIS 88 to identify the appropriate triggering mechanisms or "threshold" levels when departure from stabilized regulations will occur and the entities who will formulate and evaluate resulting regulations.

3. The failure of SEIS 88 to recognize the value of managing waterfowl on a flyway, regional, and population basis.

We wish to elaborate on these three points.

1. SEIS 88 does not identify what the stabilized frameworks will be, who will set them, or what the justification or criteria will be. It is implied that the

stabilized frameworks will be the current framework regulations. However, the U.S. Fish and Wildlife Service (USFWS) called for "restrictive regulations" in 1985 with "the intent to reduce harvest by 25% from what would have occurred otherwise". We consequently view current regulations as "restrictive not "stabilized".

Regulations in the Pacific Flyway, and California in particular, were essentially stable from 1970-83 (the only deviation was a reduction in daily bag limit from 7 to 6 in 1974). This stabilized period (for all ducks) was the longest in recent history in the U.S. While the analyses in the recently completed "Stabilized Regulations Report" ignored this extensive set of data, other analyses have shown little effect from either harvest or minor changes in regulations on pintail populations associated with California. Consequently, we view the "stabilized" regulations of 1970-83 (93 days, 7 ducks/day) as appropriate for selection as the stabilized criteria in California and probably the entire Pacific Flyway.

As a final note, California voluntarily restricted bag limits and season length in 1984, a year before the USFWS called for the restrictive 25% reduction in 1985. CWA was a major proponent of this restriction in 1984. We point this out to assure you that we are indeed concerned over the decline in waterfowl populations, especially in the Pacific Flyway, and view restrictive regulations as a possible means to increase annual survivorship. However, there is still no conclusive evidence that alterations in regulations affect survival probabilities and increase low populations.

2. SEIS 88 does not identify the "thresholds" necessary for departure from stabilized frameworks, the justification that will be used to establish these "threshold" levels, or who will be involved in establishing and evaluating them. We are concerned about writing a "blank check" to be filled in later by the USFWS. We strongly recommend that species and population plans be prepared for each flyway similar to the Cackling goose plan developed by the Pacific Flyway Technical Committee. These plans should involve public review and comment. Qualified biologists from outside the USFWS and state agencies should be involved in this process.

We are very concerned with current attempts to manage ducks on a continental basis using primarily data from mid-continent mallard investigations. We will expand upon this under #3 below. We also believe that "threshold" levels for each flyway should not be based on continental estimates and should clearly not be based solely on fall flight estimates. We stress that continental estimates may not accurately assess population levels at the flyway, regional, and local level. Finally, we recognize the inherent mechanical and biological problems in the formula used to calculate fall flight. For example, the equal weight given to the early and late nesting

indices is biologically inappropriate for early nesting species. For pintails, which seldom renest, the late nesting index should receive much less weight or perhaps not be used at all. In addition, recent mallard data from California suggests that production and survival of progeny is poorer from late nesting attempts than from early efforts. This evidence also suggests that the early index deserves more weight.

3. SEIS 88 discusses duck populations primarily on a continental basis and criticizes "special regulations" that attempt to manage species on a regional or local level. We believe that further refinement of knowledge concerning manageable populations of all migratory birds should be encouraged. For example, major advances in goose management in North America occurred when individual populations were recognized and defined. We realize that ducks exhibit differences in social systems, philopatry, and morphological/foraging adaptations from geese. However, certain duck species also show some striking similarities and potentials for management by populations.

We would like to elaborate on the status of the mallard in California. During the 1970-86 period, annual waterfowl harvest in California decreased. In SEIS 88, declines in harvest throughout the U.S. were attributed to diminishing breeding populations in the mid-continental prairies and parklands of the U.S. and Canada. However, if the harvest data are adjusted for the number of hunters, the relationship of harvest to the mid-continental waterfowl population decline is not clear. We agree that the decline in pintail harvest in California is significantly related to the decline in pintail breeding populations in the prairies and parklands. However, we do not agree that this conclusion is correct for mallards. We note two things. First, is the dramatic decline in the number of duck hunters in California (Figure 1). Second, is the increase, not decrease, of mallards taken per hunter in California from 1961-86 (Figure 2). Analysis of banding data indicates that this improvement coincided with an increase in the ratio of California to non-California banded mallards in the California harvest. The CWA - California Department of Fish and Game Duck Stamp Project nesting studies also indicate very high nesting densities and reproductive success of mallards throughout California compared with mid-continental breeding areas. To conclude, it appears that most mallards harvested in California are from populations breeding in California and that these populations were not adversely affected by the stabilized regulations during the 1970-83 period. Furthermore, their population is not affected by prairie droughts and should not be treated in the same manner as prairie mallards.

As a final comment, we draw your attention to the wetland habitat situation in California. Currently, more than 90% of original wetlands in California have been destroyed, and of the remaining high quality waterfowl habitat, over two-thirds is owned and managed by the private sector (duck clubs). It seems obvious to us that the maintenance of this private wetland habitat is critical to the perpetuation of waterfowl populations in the Pacific Flyway. However, the numbers of duck hunters in California has declined 50% since 1970 (Figure 1). The decline in hunter numbers, and consequently their political and financial support for wetland preservation, has been caused by declining waterfowl numbers and perceived lack of, or restrictions on, hunting opportunity. We believe that any further restrictions on regulations would further erode hunter numbers and support in California. Consequently, it is clear that the optimum management strategy would be to maximize hunting opportunity consistent with the needs of the waterfowl resource.

Only Alternative 1 (stabilized frameworks with expanded special regulations) clearly provides far greater inducements for landowners to preserve habitat. The primary deterrent to Alternative 1, as stated in SEIS 88, is a "probable overharvest of some populations". We are unsure how SEIS 88 has concluded that a "probable" overharvest would result.

We appreciate the inclusion of socioeconomic considerations in SEIS 88. As stated above, we believe these considerations are especially relevant in California and also other areas of the U.S. where private landowners control significant amounts of waterfowl habitat. Consequently, we believe socioeconomic considerations deserve additional recognition in SEIS 88.

We again thank you for the opportunity to comment.

Sincerely,

Dan Chapin

D. Chapin, Chairman
Resources Committee

DC/ms

CALIFORNIA WATERFOWL ASSOCIATION
3840 ROSIN COURT • SUITE 100 • SACRAMENTO, CA 95834 • (800)-424-DUCK • (916)-648-1406

DUCK HUNTING REGULATIONS IN THE PACIFIC FLYWAY IN 1988-89:

ARE SEVERE RESTRICTIONS NECESSARY?

A POSITION STATEMENT BY

THE CALIFORNIA WATERFOWL ASSOCIATION

THE PROBLEM:

Surveys of ponds and waterfowl populations in major breeding areas of North America in spring 1988 documented extremely dry conditions and low numbers of many duck species. In the prairie pothole region where many ducks breed, numbers of ponds, mallards, and pintails are 44, 43, and 80% below 1965-87 averages. Total numbers of pintails counted throughout North America were only 2.577 million - an all-time low.

THE QUESTION

Many state and federal agencies and private groups concerned with the conservation of waterfowl have asked whether severe restrictions in duck hunting regulations are prudent in 1988-89 because of extremely low populations of some ducks. In response, the U.S. Fish and Wildlife Service has called for major restrictions nation-wide. Additionally, the North American Wildlife Foundation and the Delta Waterfowl and Wetlands Research Station have asked for a nation-wide prohibition on hunting of two species, the pintail and canvasback.

AN ANALYSES:

The California Waterfowl Association (CWA) represents waterfowl hunters and conservationists in California and has prepared an analyses of current information on the population dynamics of the two most important duck species, mallards and pintails, in California and the Pacific Flyway to determine if major restrictions in duck hunting regulations are biologically justifiable and if such restrictions have negative short- and long-term impacts on the availability of significant waterfowl habitats, and therefore future waterfowl populations in the Pacific Flyway.

Mallards.- CWA and the California Department of Fish and Game have conducted extensive studies on the ecology of breeding and wintering mallards in California during the past four years. Data strongly suggest that the majority (more than 70%) of mallards harvested in California breed in California, that these breeding

numbers are substantial (perhaps ca. 500,000), that nesting densities (often more than 1 nest/acre) and success (greater than 40%) are high, and that this population is stable or increasing. California also experienced dry conditions in 1988 and both nesting densities and success are reduced slightly from 1987, however, April-May rains facilitated a strong "late" nesting effort and fall flights will contain many young birds. Harvest analyses indicate that the California mallard population was not adversely affected by season lengths of 93 days and bag limits of 7 ducks/day throughout the Pacific Flyway in the 1970's. Restrictions in mallard bag limits in the Pacific Flyway during 1985-87 (to 4 or 5/day with no more than one hen), when mid-continent prairie populations were low, have had no apparent effect on measured populations parameters of mallards in California.

Pintails. - The breeding ground derivation of most pintails harvested in the Pacific Flyway is from the southwestern prairies of Canada, northwestern Canada, and Alaska. Extensive analyses of pintail population dynamics clearly indicates that population changes and recruitment were primarily related to habitat conditions on both breeding and wintering areas and not to harvest variables. Harvest of pintails was generally not influenced by hunting regulations, and numbers of adult and total pintails harvested was almost totally related to population size. Season lengths and daily bag limits of pintails in California were reduced during 1984-87 compared to the previous 5-year period. Numbers of breeding pintails decreased 32% from 1979-83 to 1984-87 even though the proportion of total pintails killed each year (total numbers of pintails harvested divided by the estimated breeding population) in the entire U.S., Pacific Flyway, and California was substantially lower (15.2, 19.8, and 21%, respectively) in each area during 1984-87. These data indicate that increasing restrictions in harvest of pintails have not increased numbers of breeding pintails and that other factors such as habitat conditions have controlled population changes.

Habitat Availability. - Approximately 2/3 (ca. 200,000 acres) of wetlands remaining in the Central Valley of California are privately owned and managed. These privately owned wetlands are critical to the maintenance of Pacific Flyway waterfowl populations because greater than 60% of all waterfowl in the Pacific Flyway winter here. Of special importance is the availability of these wetlands in late winter; several recent studies demonstrate that resources obtained in privately owned wetlands in late winter and spring, especially in dry years, significantly influences survival, and reproductive potential, of waterfowl populations in the Pacific Flyway. Maintenance of water in private wetlands in late winter is often costly, but nonetheless conducted, because hunting seasons typically last until mid-January. If hunting seasons are reduced in length, especially in late winter, then many private managers have no incentive to maintain water on wetlands, and consequently, thousands of acres of critically important wetlands become unavailable to waterfowl. Another more devastating long-term consequence of severe restrictions in duck hunting regulations is the loss of hunter participation (as evidenced by the recent declines in duck stamp sales in the Pacific Flyway), support, and maintenance of critical wetland habitats. If loss of habitat is great, then effects of harvest restrictions can be negative and offset, or exceed, any possible gains achieved by killing fewer ducks.

RECOMMENDATION

CWA is committed to helping perpetuate and increase waterfowl populations in North America and is deeply concerned with recent low pintail populations. CWA has considered that restrictions in duck hunting regulations might be necessary to protect breeding stocks and increase future populations. In 1984, CWA voluntarily requested a reduction in season length and daily bag limit in California when other states, flyways, and private groups were asking for stability or increases in bag limits. CWA's track record indicates our willingness to do our share. However, based on the above analyses, we do not feel that additional restrictions in the Pacific Flyway are biologically justifiable. Furthermore, we warn that increased restrictions potentially have detrimental effects than equal, or exceed, benefits.

While the above data indicate little, if any, biological justification for further restrictions in duck hunting regulations, other political realities suggest that restrictions are inevitable. If restrictions are required, CWA recommends that restrictions be minimal. CWA especially insists that if changes in season length are required, that seasons be structured so that the availability of private wetlands in late winter be maintained. We strongly emphasize that prohibition of hunting of pintails is biologically unjustified and possibly extremely damaging to the long-term preservation of waterfowl habitats and future waterfowl populations in California and the Pacific Flyway.

References to quotes, numerical values, and data analyses in this statement can be provided upon request.

CALIFORNIA WATERFOWL ASSOCIATION
3840 ROSIN COURT • SUITE 100 • SACRAMENTO, CA 95834 • (800)-424-DUCK • (916)-648-1406

19 August, 1988

Mr. Frank Dunkle, Director
U.S. Fish and Wildlife Service
Washington, D.C. 20240

Dear Mr. Dunkle,

The California Waterfowl Association has reviewed the proposed late-season frameworks for certain migratory game birds, including waterfowl, printed in the Federal Register on 12 August and wishes to provide you with our formal public comments.

The U.S. Fish and Wildlife Service has recommended more restrictive duck hunting regulations for 1988-89 than those established during 1985-87. Since 1983 the Service has reduced the length of the duck hunting season in California from 93 to 59 days, the total daily bag of all ducks from 7 to 4, the daily bag of mallards from 7 (with no sex restrictions) to 3 (only 1 hen), the daily bag of pintails from 7 to 1 of either sex for the first 7 days of the season and 2 drakes for the last 16 days, and beginning of daily shooting hours from 1/2 hour before sunrise to sunrise. CWA has prepared an in-depth analyses of the documented need, effectiveness, and prudency of these major restrictions and our analyses do not support USFWS proposals for 1988-89.

On a general note, the restrictions proposed for 1988 are similar for all flyways and apparently ignore flyway and regional differences in derivation of harvest, habitat losses and ownership, and hunter demography. CWA continues to warn of, and strongly objects to, the dangerous precedent set by this "continental" management approach.

Concerning specific regulations proposed for 1988-89, CWA continues to maintain that the proposed reduction in the daily bag limit of mallards (from 4 to 3) has no biological justification for the Pacific Flyway and ask that the final regulations restore the bag limit to 4 mallardsper day for the Pacific Flyway. Banding data clearly indicate that mallards harvested in the Pacific Flyway, and California in particular, are produced primarily in areas outside of the drought-stricken prairies. Furthermore, all population parameters measured to date indicate that mallard populations in the Pacific Flyway are stable or increasing and were unaffected by hunting take during the 1970's and 1980's.

CWA also strongly objects to the unusual pintail bag limits proposed by the Service and asks that the daily bag limit be restored to at least 1 pintail per day for the entire season and, if sex restrictions are necessary, that either sex be legal during the first portion of the season (i.e. the first segment of a split season) and that drakes only be allowed for the latter portion of the season. CWA strongly emphasizes that closure of any part of the season for pintails is biologically unjustified since extensive analyses clearly indicate that habitat conditions in both prairie Canada and California and not harvest are the primary influences on changes in population size and recruitment of pintails.

CWA again warns that the severe restrictions proposed by the Service may damage efforts to preserve, restore, and enhance waterfowl habitat in California. It seems ironic that the newly adopted North American Waterfowl Management Plan seeks to increase the involvement and committment of the private sector and places emphasis on habitat, yet the restrictions proposed for 1988-89 may effectively reduce the incentives and contribution of the private sector so important in California by placing the emphasis on the hunter rather than on habitat. We ask the Service to recognize that only 300,000 acres of high quality waterfowl habitat remain in California and that two-thirds of these lands are owned and managed by private duck hunters. These private wetlands are especially critical because the Central Valley of California winters 4-5 million waterfowl - the largest single concentration of wintering waterfowl in the world, representing 60 percent of all waterfowl in the Pacific Flyway and 20 percent of all waterfowl in North America. If duck hunting regulations, especially for pintails, are unnecessarily severe, we warn that significant amounts of private habitat in California will not be flooded, managed, or preserved.

In conclusion, CWA believes that the proposed restrictions in both season length and daily bag limits are not biologically justifiable, and that these restrictions may have significant negative effects on the long-term preservation of wetlands and waterfowl in California.

We sincerely appreciate the opportunity to provide you with these comments.

Sincerely,

Timothy Egan

Timothy Egan
President

cc. Pacific Flyway Council

RECEIVED
JUL 25 1988
Ans'd.....

WORKING AGREEMENT
for
Central Valley Habitat Joint Venture
of the
North American Waterfowl Management Plan

PURPOSE

The primary purpose of this Central Valley Habitat Joint Venture structure is to communicate, evaluate, and analyze common waterfowl habitat issues and concerns and develop objectives, strategies, and implementation actions to protect and improve waterfowl habitats identified in the North American Waterfowl Management Plan.

CENTRAL VALLEY HABITAT JOINT VENTURE GOAL AND PRIMARY OBJECTIVES

GOAL: Protect, maintain, improve, and restore habitat to increase waterfowl populations to desired levels in the Central Valley of California consistent with other objectives of the North American Plan.

OBJECTIVES:

1. Protect 80,000 additional acres of existing wetlands through fee or perpetual easement acquisition.

2. Secure an incremental firm 410,050 acre-foot water supply which is of suitable quality and is delivered in a timely manner for use by the national wildlife refuges, state wildlife management areas, and the Grassland Resource Conservation District.

3. Secure Central Valley Project power for national wildlife refuges, state wildlife management areas, and Grassland Resource Conservation District.

4. Increase wetland area by 120,000 acres.

5. Enhance wetland habitats on 290,000 acres of public and private lands.

6. Enhance habitat on 450,000 acres of agricultural lands.

STRUCTURE OF DIFFERENT GROUPS

Joint Venture Implementation Board.

The "Implementation Board" consists of designates from six conservation organizations that receive technical assistance from the U.S. Fish and Wildlife Service, California Department of Fish and Game, and other organizations and agencies. If unable to attend a meeting, a member can designate an "Acting" to attend. The Board consists of representatives from the following organizations:

California Waterfowl Association (CWA)
Defenders of Wildlife (DOW)
Ducks Unlimited (DU)
National Audubon Society (AUD)
Waterfowl Habitat Owners Alliance (WHOA)
The Nature Conservancy (TNC)

Waterfowl Habitat Technical Committee.

The "Waterfowl Habitat Technical Committee" will consist of one key waterfowl biologist member each from CWA, DU, FWS, and CDFG in addition to the Project Coordinator who will serve as Chairperson. If unable to attend a meeting, a member can designate an "Acting" to attend.

Working Committees.

Each "Working Committee" formed will consist of at least one member from the Waterfowl Habitat Technical Committee. This technical committee member will chair the working committee and appoint needed participants.

Other interested agencies and organizations may be invited to participate in various committees as needed and as approved by the respective committees. However, designated committee members only are responsible for developing their reports.

IMPLEMENTATION BOARD FUNCTIONS

1. Meet every other month on the third Thursday in Sacramento, California, at 10:00 a.m.

2. Decide on the objectives to be assigned the Waterfowl Habitat Technical Committee and the reporting format for subsequent action.

3. The Chair and Vice Chair shall change on an annual basis in order of organizational listing under MEMBERSHIP with Vice Chair assuming chairmanship as the Chair is vacated.

4. Meet with and ask for reports from the Waterfowl Habitat Technical Committee at least every other month.

5. Make decisions and take actions on major waterfowl habitat issues.

WATERFOWL HABITAT TECHNICAL COMMITTEE FUNCTIONS

1. Meet at least monthly with concurrent sessions with the Implementation Board every other month.

2. Perform work assignments from the Implementation Board.

3. Recommend working committees for approval by the Implementation Board.

4. Discuss and provide technical information to the Implementation Board to achieve habitat objectives.

5. Supervise working committees.

6. Attend working committee meetings as appropriate.

WORKING COMMITTEE FUNCTIONS

1. Receive their authority to function from the Waterfowl Habitat Technical Committee and Implementation Board. The chairperson of each working committee will be a member of the Waterfowl Habitat Technical Committee.

2. Report directly to the Waterfowl Habitat Technical Committee. Working committee reports will go to the Waterfowl Habitat Technical Committee chair for review and then submitted to the Implementation Board for final action.

3. Receive assignments from the Waterfowl Habitat Technical Committee. Working committee reports are submitted only to the chair of the Waterfowl Habitat Technical Committee unless the Implementation Board chair requests them directly.

4. Establish their own meeting schedule to complete assignments.

PROJECT COORDINATOR FUNCTIONS

1. Chair Waterfowl Habitat Technical Committee.

2. Primary liaison between Implementation Board and Technical Committees.

3. Principal spokesperson on technical issues for joint venture activities.

The Working Agreement shall become effective when signed by the parties and shall continue in force until termination by any party upon thirty (30) days notice in writing to the other parties of its intention to terminate upon a date indicated.

California Waterfowl Association

Dan Chapin

6/29/88
Date

Defenders of Wildlife

Richard Spotts

7-6-88
Date

Ducks Unlimited

John Nagel

6-28-88
Date

National Audubon Society

Glenn Olson

20 June 1988
Date

Waterfowl Habitat Owners Association

Mike Maier

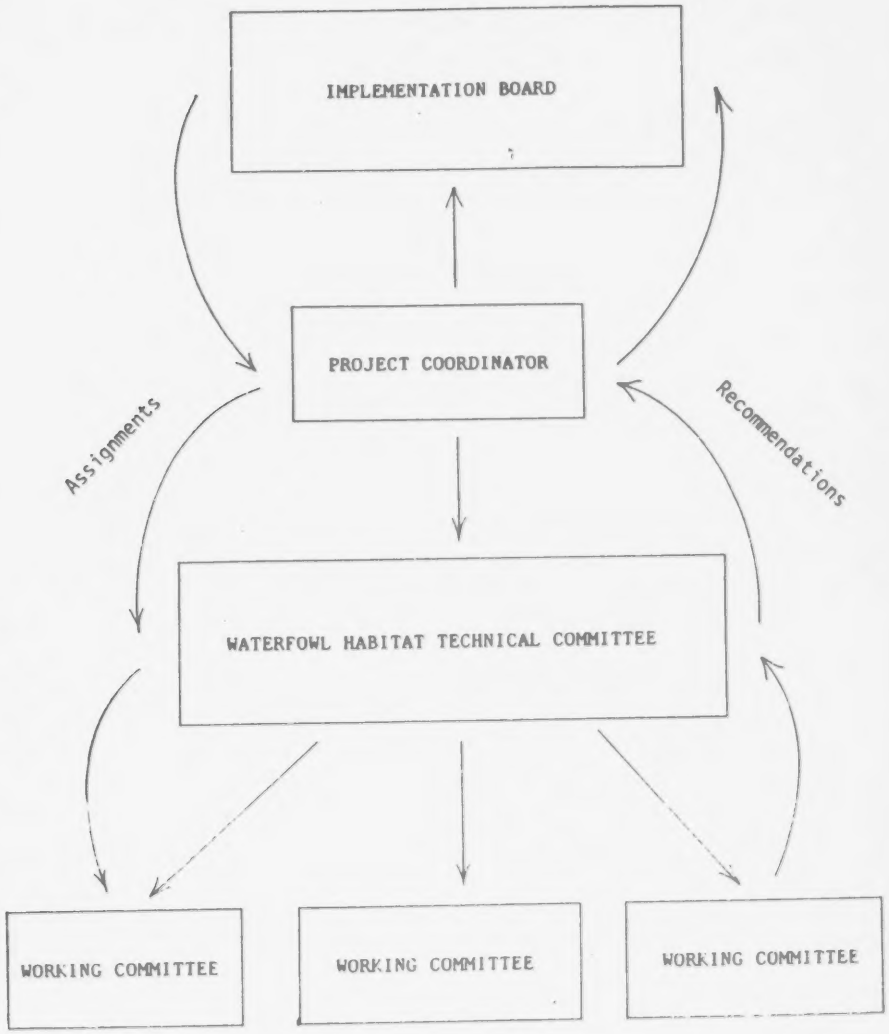
7-21-88
Date

The Nature Conservancy

Sabin Phelps

July 7, 1988
Date

STRUCTURE


IMPLEMENTATION BOARD
PROJECT COORDINATOR
Assignments
Recommendations
WATERFOWL HABITAT TECHNICAL COMMITTEE
WORKING COMMITTEE
WORKING COMMITTEE
WORKING COMMITTEE

6/16/88

WORK TEAMS

Wetland Protection Work Team (Objective #1)
Chairman: Gary Kramer (USFWS)
Prospective Members: Joel Miller (USFWS)
Mark Strong (USFWS)
Dan Connelly (CDF&G)
Taber Kopan (CWA)
Jerry Cauthon (DU)

Water and Power Supply Work Team (Objectives #2 & #3)
Chairman: Dick Bauer (USFWS)
Prospective Members: Dick Daniel (CDF&G)
Glen Rollins (CDF&G)
Bob Oser (USFWS)
Dan Chapin (CWA)
Harold Meyers (USBR)
Larry Swenson (DWR)
Jerry Johns (SWRCB)
Steve Moore (SJVDP)

Wetland Restoration Work Team (Objective #4)
Chairman: Dan Connelly (CDF&G)
Prospective Members: Mark Strong (USFWS)
Mike Miller (USFWS)
Dick Daniel (CDF&G)
Glen Rollins (CDF&G)
Mickey Heitmeyer (CWA)
Roger Peterson (DU)
Jim Gibson (C/E)

Wetland Enhancement Work Team (Objective #5)
Chairman: Roger Peterson (DU)
Prospective Members: Joel Miller (USFWS)
Greg Menzik (USFWS)
John Beam (CDF&G)
Dan Gifford (CDF&G)
Ron Schultz (SCS)
Mickey Heitmeyer (CWA)
Peter Stent

Agricultural Enchancement Work Team (Objective #6)
Chairman: Mickey Heitmeyer (CWA)
Same as on current CWA Agriculture-Wildlife Enchancement Committee

Minnesota Waterfowl Association, INC
5701 Normandale Road • Minneapolis, Minnesota 55424 • (612) 922-2832
Minnesota Dollars — Minnesota Habitat

STATEMENT OF GREG BERG
EXECUTIVE DIRECTOR
MINNESOTA WATERFOWL ASSOCIATION

HOUSE SUBCOMITTEE ON FISHERIES AND
WILDLIFE CONSERVATION AND THE ENVIRONMENT

SEPTEMBER 22, 1988

Thank you for the opportunity to be represented and testify regarding the decline of waterfowl populations. For over twenty years, Minnesota Waterfowl Association Members have championed the cause of waterfowl and their habitat on the legislative, educational, and environmental battlefronts.

The many problems confronting waterfowl are indeed complex. Habitat loss due to illegal and legal drainage continues at an alarming rate. Sensless conversion of upland and wetland habitats to all-out agricultural production, most often encouraged by federal subsidy programs, takes a tremendous toll on waterfowl. The Corps of Engineers right at this time is in the process of draining two million acres of prime wintering habitat in the Yazoo River Basin, even though the majority of Mississippi residents and landowners oppose the project!

The dismantling of the federal CRP Program, excessive legal harvest, pollution, and acid rain pose additional threats to waterfowl populations. As if these problems aren't enough, illegal harvest, primarily on wintering grounds, accounts for millions of waterfowl falling prey to skilled poachers and outlaws who are much better equipped than the few federal agents whose job it is to protect the resource.

Yes, we've got section 404, Swampbuster, Waterbank, state, federal, and private acquisition programs along with the notion that government wants to protect wetlands, but each year we continue to experience a loss of America's wetlands at the rate of over 500,000 acres annually. Approximately 1400 acres a day! The present programs now in place are not adequate. The incentives to save wetlands are nowhere near the incentives to destroy them.

Legislation at both the state and federal level is of the utmost importance, but good legislation without enforcement means nothing and comprehensive efforts, such as the North American Waterfowl Management Plan, will be meaningless without adequate Congressional funding.

Habitat is the Key

The recent formation of the Federation of State Waterfowl Associations (FSWA) will allow state waterfowl conservation organizations to play an active role in national legislation and programs. In almost every instance, the problems waterfowl are now facing cannot be solved without a coordinated comprehensive national effort.

The actions of Director Dunkle in the setting of conservative harvest regulations this fall have taken a giant step toward restoring the faith of responsible waterfowlers, whose first concern has been the resource. His responsible position should be applauded from every corner of the continent. For far too many years waterfowl have taken a back seat to politics and greed.

We will be looking to each and every one of you as members of Congress for support and leadership.

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